A Few Words on Evergreens and other Matters.

CEDAR OF LEBANON.

IMPORTANT to the landscape, for shelter, and for winter and summer beauty, as evergreen trees and shrubs are, we never lose an opportunity of speaking a good word in their behalf, though we run the risk of repeating what has been said before. Their cultivation, in England, is a perfect passion, carried sometimes to a degree that appears almost unpardonable in a country where the land would seem to be required for food. The English climate is, undoubtedly, much better adapted for *a pinetum*, or collection of pines, than our own. Dropmore, not many miles from Windsor Castle, presents as fine examples of Evergreens as it is well possible to conceive. Its proprietor, Lord Grenville, had a love for the subject, and procured the newer evergreens as soon as they were imported; his trees (and those at Elvaston Castle) present as large specimens of the new kinds as are to be found in cultivation; happily, his widow takes pride and pleasure in keeping them in condition. Most of them have space to develop their beauty, and a system of *feeding* the trees was early employed, that has been attended with most happy results. The operation is a very simple one, and may be practised by every body. Trenches are dug in radii that approach the body of the tree; beginning at a distance of forty or more feet from the body of a large specimen, a gutter, twelve to twenty-four inches in depth, is excavated, and the soil carted away; when the young rootlets at the extremities of the roots are reached, they are gently raised and imbedded in a composition of decayed leaves and virgin mould, that has been thoroughly prepared and mixed; or, if any particular description of food is known to be better adapted to a given kind of tree, it is of course employed. In these numerous radiated trenches the trees find their nourishment, and acquire a vigor and beauty that is a perfect regale to the eye.

Carrying out the idea at home, the following experiment was tried on a Norway fir, which is still the graduated thermometer to tell of the advantages of feeding roots. It had the appearance of being quite healthy, but had been planted two years before in a clay soil, in a hole about three feet wide. We had trenches dug to its rootlets, beginning at a distance of seven feet and a half only from the tree. The rootlets were found making a vain effort to penetrate the clay which they reached the previous autumn. Additional nourishment gave continued impetus to the plant, which grew far beyond its contemporary neighbors, rarely increasing

less than three feet per annum. In three years the roots were again at the borders of the clay, and, for the sake of an experiment, we then left them to battle with their difficulties as best they could. The annual growth began sensibly to diminish, till the third year its leader grew but six inches; the side branches partook of the stunting, when we relented, and gave another course of feeding by extending the trenches; the growth immediately was sensibly increased; the second year it was as vigorous as of old, and is now one of our best specimens; but there it stands, its annual growth marked by the leader and side shoots, a monument to the truth of the remark, that trees can be fed as readily as a Berkshire.

There is nothing surprising in this; for, though trees do grow under difficulties, and sometimes with only a few prongs penetrating between rocks, to have rapid growth we must give them suitable soil; merely planting a tree is not sufficient, in the majority of cases, to insure its full beauty.

Two other specimens of the Norway fir, in which we take considerable pride, have succeeded, till the past year, in a remarkable degree. Clay was dug out and removed to the depth of five feet, till sand was found; the holes were made six feet wide; leaf mould and fresh top soil were made ready, and the trees, previously dug around and left standing on a point that resembled a reversed acorn, or a turnip, till thoroughly frozen, were put upon a sled, and carefully deposited; the holes had been receptacles of hundreds of cart loads of shavings, which were burnt daily therein, for the sake of safety to a new building, and with a view to the disintegration of the surrounding clay. For four years the trees flourished, to the admiration of every one at all observant of nature; but, the past season, they grew less than half as much as during the previous years. On examination, it was found that the rootlets had passed the made ground and some inches of the burnt clay, and, having ceased to find their natural nourishment, had ceased to be grateful for former kindness, and complained as plainly as if in words. This day, while we write, the rootlets have been carefully approached, and treated to another meal that will take them some years to devour.

The roots of evergreens rarely descend deep, so that we have them within reach of our "feeding troughs." So simple an operation should not be neglected whenever the trees, speaking their own language, implore the owner for assistance. The omission of this duty will account for the stunted appearance of thousands of evergreens in any neighborhood where the soil is deficient in the proper ingredients, and too many neighborhoods are so, to expect favorable results without similar care.

Disappointments have occurred in many attempts to imitate the planting abroad, but it should not discourage us. If we cannot have all the variety that Englishmen have, we have an abundance of superb trees for a plantation of great extent. If the Cryptomeria Japonica is not hardy, or the Araucaria imbricata dies by slow degrees, substitute something else; the Pinus excelsa, the Cedar of Lebanon, "as a proud ship of the line among coasting vessels," hardy in the middle latitudes of the United States, and beautiful beyond compare—the Hemlock and Norway

Spruce, unquestionably our most valuable conifers, the White Pine, and numerous others that have been tried, and which, on reference to the former pages of this work, will be found to have proved hardy as far north as Northern New York and Canada, would soon make up a list of sufficient variety to give the character of a pinetum, where the winter winds would only penetrate to utter those harp-like sounds that are so musical to the attuned ear. Shelter and beauty can thus be combined in any climate of our Union; at the South, by a greater variety; at the North and West, by greater numbers of the same kinds. But do not let us hear, as we did the other day, that "the planting of evergreens is a humbug," because one or two specimens that much was expected from had partially failed; they were planted in a most exposed situation, and, probably, without proper care; to have a good collection of evergreens, you must give attention to the wants of the plant in many ways; two of these are, shelter while they are young, suitable soil, and plenty of it.

It is a question not often mooted, whether evergreens do or do not require the same cutting back as deciduous trees, when removed. Our own experience indicates that a slight trimming is useful. The mode of operation on the Norway fir, for instance, is this: Cut back the limbs of last year's growth, using the dissolved shell-lac on cuts, and leaving the leader untouched. The effect is the same as that on deciduous trees, with this additional advantage: the plant throws out at least two—probably more—leading limbs, and the result is that of thickening the growth, and improving the appearance. For the sake of experiment, we carried this system to as great an extent, with a single specimen, as possible; ere many years elapsed, the limbs became so heavy with numerous branches, that they broke with their own weight. Others, cut back once in every three years, have attained rare beauty and a close habit.

One of the peculiarities attending a place newly planted, we have never seen noticed by any writer. A tree recently set out always looks as if it were *not at home;* it is not in keeping with its new position, or, rather, it has not yet appropriated the position to itself; hence, for the first few years of a new place, the planting has an unnatural look that is often the source of disappointment. In time, however, the trees put on a life-like garb, that appropriates the space as their own, and they seem to fit into their niches so naturally, that they are scarcely noticed by the careless observer; they are now at home, and part and parcel of the scenery. If the ground has been *thoroughly trenched*, you need not wait many years for good results.

The first year or two of the suburban residence, where all the trees are new, are thus not without their discouragements, and hence it is a good plan to procure a few specimens of greater size, even though they are not of the most valuable kinds, and to displace them one by one as better grow up. A few varieties bear removal with more success than others; the Horsechestnut is patient even under ill-treatment; the Silver Maple may be taken up without material injury; the Willow, if planted in made ground, or ground that is loose and moist,

will rapidly attain importance. Evergreens should be at once set out, as a year's delay is a year lost; the Austrian Pine, and the Pinaster, are among the most rapid growers, while the Cembran pine is extremely slow. Such information is obtainable from books, and no young planter should neglect their study.

It is a favorite plan with us, to intermingle the *utile* with the *dulce* in planting a new place. We can see no reason why many of our shade trees should be neglected because they also produce fruit. There is scarcely a more ornamental tree than the Spanish chestnut, and it yields a very profitable crop of excellent nuts; why not plant this instead of the commonest maples? A few fine cherry-trees of the most select kinds, serve the purposes of shade nearly as well as the most fashionable foreign deciduous trees, and they are an annual source of gratification, not only to the old and young, but they bring round the house the favorite robbin, and other singing birds. Reflect, while the latter enjoy themselves, that you planted the cherry to share its fruits with your friends. The Shell-bark hickory is one of the most beautiful American trees we possess; procure the true kind, and give a little space to what will long delight your successors. The Walnut is an extremely productive tree, and its timber is worth more than most others. The English walnut, or Madeira-nut, is also ornamental and useful. The Peach, the Apricot, and the Crab-Apple, interspersed in your grounds in suitable situations, are as picturesque as shrubbery, and, like the Filbert, yield valuable products; another argument for the use of these, is to be found in the fact, that when they are placed within sight of the mansion, they are more under the eye of the resident, and, consequently are less liable to depredations.

No country in the world is expending, on new rural improvements, more money than our own; it is of great importance that it should be laid out judiciously. Whatever may be the natural taste of the beginner who is capable of enjoying the happy efforts of others, he should be impressed with the fact, that many tasteful persons fail when they employ their energies in a new field of operations, precisely as they might do if they attempted a musical instrument without a master; they should consult some one whose business it is to lay out their grounds, whose experience has been exhibited by some example, and who can give correct information in such important points as what trees attain a great or a rapid height, and which must be waited for in patience. Accomplished individuals, in this department, are extremely rare; landscape gardening is a fine art, and, in all the fine arts, great masters are the exceptions.

One of the worst errors committed by citizens, when removing to "the country," is their congregating too near together in villages where the land is dear, the "lots" small and shallow, and where, as a taste for rural art increases, there is no space to expand. The citizen, accustomed to his small plot of 20 by 100 feet in town, conceives that 100 by 200 is a magnificent allowance. Many purchase even much less, and their country experiences end in disappointment; whereas, if they had gone but a little further from village streets, they would have possessed, at the same cost, ground for a good orchard and a cow pasture. Our own neighborhood

is an example of this. Germantown has been cut up, by interested speculators, into very small inclosures, where a few evergreens soon bid defiance to variety of shade and scenery; while the more thoughtful purchaser in the outskirts, has all that can make his residence desirable, but has, also, a building-lot or two to spare to a friend, at the cost of his whole original expenditure.* These remarks will apply to thousands who have left our great cities for purer air, and who have great reason to regret their want of foresight; the hint will not be lost, we trust, on future improvers.

On the other hand, do not undertake too much. Country, or even suburban life, is not less expensive than that of the city; to keep a set of assistants whom you must always overlook, and perhaps two sets, one *to go to town*, is onerous and costly. It is more difficult to be "content with simplicity," and those habits which do not engender expense, than most people imagine; and "living in the country," be assured, does not necessarily decrease the difficulty. The really happy country people are those who have graduated, as all sensible people should do, their expenses *within* their income; who have a fondness for country pursuits, a garden, fruit, shrubbery, and who can find congenial employment *when alone*.

FUCHSIAS,

EMPEROR NAPOLEON (BANKS), AND VENUS DE MEDICI (BANKS).†

E. BANKS, Esq., of Sholden Lodge, near Deal, has produced more really good Fuchsias than any other raiser. His Glory, Queen of Hanover, Elegans, Vanguard, Autocrat, and many others, even much older varieties, are universally grown. The late Mr. Story has done a great deal in the way of procuring NOVELTIES in Fuchsias, but he aimed chiefly at producing new characters, as in the white and striped corolla'd varieties. Mr. Banks sought more to obtain varieties excelling in form and of robust short-jointed habit, by means of carefully effected crosses. We need only point to Queen of Hanover for perfection in habit, and we much question if it is not still the finest white Fuchsia yet sent out. There never was a finer batch of Fuchsias let out than those sent out in the spring of 1854, of Mr. Banks's raising. There was Queen of Hanover, Clio, and Charmer, all light sorts; and Elegans, the gem of the dark ones still when well grown; Autocrat, with its large bold dark flowers of a distinct character; Vanguard, which wants a well reflexed sepal to make it perfect, and should be the parent of many for habit; and Omega, with its exquisite slate blue corolla. Since then,

* One of the sources of independence that has proved valuable to nurserymen, has been the rise in the value of their lands when they were near improving cities. We could designate many instances of this kind in various directions; it is common to see nursery stock advertised for sale, in consequence of the land having become valuable for building purposes.

† See Frontispiece.

Banks's Prince Albert, a good dark variety; and Climax (Banks), a good habited kind, but wanting substance in the sepals. Others of Mr. Banks's raising reached us last year, but we failed in blooming them. The two varieties we now figure will be found acquisitions: Emperor Napoleon is a very fine dark variety, and Venus de Medici highly deserves a place in every collection. The exception is Wonderful, one of Mr. Banks's seedlings, we believe, and it is certainly a wonderfully large and coarse flower, with not a good quality to recommend it beyond size.—*London Florist.*

METHOD OF USING SULPHUR FOR MILDEW.

BY JOHN J. HOWE, BIRMINGHAM, CONN.

I HAVE a small cold grapery, in which the vines have passed their fourth season, and have borne two fair crops. One point in my experience may be worth communicating to the readers of the *Horticulturist.* It relates to the manner of using sulphur for the prevention of mildew. I have used it, in solution with quicklime, in the following manner: Take, say a half bushel of lime and 6 lbs. of flower of sulphur. Mix them together in a large tub (a half hogshead), and pour on enough water to slake the lime, and mix it to about the consistence of whitewash. After this is thoroughly mixed, fill your tub with water, and stir it, so as to diffuse the lime and sulphur through the water. Let it stand long enough to allow the lime to settle, and you will have a clear, transparent liquor strongly impregnated with sulphur, as will be manifest from its yellow color, and its strong, sulphurous taste and smell. My practice has been to have the ground in the interior of the grapery sprinkled with this liquor every evening through the season, as long as there is any danger of mildew. The tub may be filled up with water, from time to time, as the liquor is used, and the quantity of lime and sulphur mentioned, will be enough for a grapery 30 to 50 feet long, the entire season. In a few instances, I have used it diluted with about two parts of water to one of the liquor for syringing the vines—but I have seldom thought it necessary to use it otherwise than by sprinkling the ground as mentioned. My vines have never been attacked with mildew in the least degree—and I have never used sulphur otherwise than as above stated. There may be nothing new in the manner of using sulphur which I have adopted, but I have never seen its use recommended *precisely* in that way—and as I have found it entirely successful, and in no respect detrimental, I conclude that it has not been as generally practised as it deserves to be.

I have Black Hamburgh Grapes now (March) as good as when taken from the vines—and good enough, too—which have been laid down in dry beech sawdust.

John Lindley

DR. JOHN LINDLEY.

FROM THE LONDON COTTAGE GARDENER.

VERY recently we recorded a living example of a country gardener's son deservedly elevated for his deeds of noble daring and honorable conduct, to be the associate and the admired of our country's nobility. It is noble and animating to see such examples of the gifted son of the poor man elevated upon the pinnacle to which he has buffeted his way—

"Rough'd to his point against the adverse stream;"

and we have this day to place before our readers another such example in Dr. John Lindley.

Dr. Lindley was born at Catton, near Norwich, where his father, Mr. George Lindley, for many years carried on the business of a nurseryman and seedsman; but, being unsuccessful in business, he ultimately became foreman to Messrs. Miller and Sweet, of Bristol Nursery, where, no doubt, many of our professional readers knew him personally. The early life of the subject of this notice was not distinguished by any remarkable occurrence. His rudimentary education being obtained in his native country, he was subsequently sent to France to prosecute the more advanced branches; and, on his return, in consequence of his father's reverses, he was early thrown upon his own resources. These resources were a well-stored mind, great self-reliance, and a ready perception of the art of rising. Soon after his return from the continent, he attracted the notice of Sir Joseph Banks, by being engaged in a controversy with Sir James Edward Smith, late President of the Linnean Society. Sir Joseph favored the opinion of Mr. Lindley, and appreciating the ability of the young controversialist, he took him under his patronage, and through his influence he was employed by the Horticultural Society, to whose "Transactions" his father has been a contributor.

The Horticultural Society having determined, much against the wishes of many of its fellows, to occupy an extensive garden, finally arranged in 1821, for that at Chiswick.

The Garden required for its care a resident staff, and as Assistant Secretary of the Garden we find, in 1822, Mr. Lindley was for the first time announced as an officer of the society. As holder of that office, he had to superintend the collection of plants, and other transactions in the Garden, besides keeping all accounts and minutes of reports addressed to the Society's Council.

Mr. Sabine retired from the Secretaryship, and was succeeded by Mr. Bentham, Mr. Lindley continuing his Assistant Secretary.

Mr. Lindley's connection with the Horticultural Society, sustained by his undoubted great acquirements as a Botanist, aided his rapid upward progress. The *Botanical Register*, established by Mr. Sydenham Edwards, in 1815, passed in 1826 to the editorship of Mr. Lindley, having previously been under the management of his friend Mr. Bellenden Ker. The sound knowledge he here exhibited, as well as in his *Rosarum Monographia*, and *Synopsis of the British Flora*, published in 1820, fully justified the University of London in placing him in the Chair of Botany, from which, as Professor, he delivered his Introductory Lecture at the close of April in 1829. In this he boldly made a stand in favor of the Natural System of Botany, and announced his intention of adopting it as the basis of his course of Instruction. Mr. Tegetmeier says, in a letter now before us: "I am a very old pupil of Dr. Lindley's. Twenty years ago I took his gold medal at University College, and maintained the superiority of his teaching by taking the silver botanical medal of the Apothecaries' Company, open to the competition of all the students in England. We have long been strangers; but I can truly say,

as a lecturer, he was one of the best teachers I ever heard. Free and conversational in his manner, his matter was excellent, and methodically arranged. I entered his class with little knowledge of, and less liking for, Botany, and left it with the results that I have mentioned, having amongst my competitors Dr. W. B. Carpenter, Dr. Lankester, Dr. Jenner, &c."

In 1832 Mr. Lindley procured from a German university the degree of "Doctor of Philosophy." From that time he was known as Dr. Lindley. In 1838 he became Vice-Secretary of the Horticultural Society—a post which he has ever since continued to hold.

We have little more to chronicle of Dr. Lindley beyond a list of his principal publications, in addition to those already noticed, and they deserve the general criticism that they are all excellent.

In 1833 he published his *Nixus plantarium* (Approximations of Plants), and in 1838, *Flora Medica*, and *Sertum Orchidaceum*, besides reporting upon the short-comings at *Kew Gardens*.

In 1839 appeared his *Ladies' Botany*, and *School Botany*, and in 1840, his *Theory of Horticulture*—decidedly one of the best efforts to illuminate and direct practice by science.*

In 1841 he published his *Elements of Botany*, and in conjunction with Mr. Paxton and Mr. Dilcke, founded the *Gardener's Chronicle*, over which he continues to preside as editor. The same year, also, he became Professor of Botany at the Royal Institution, and published, in conjunction with Mr. Hutton, *The Fossil Flora of Great Britain*.

In 1846 appeared his largest and valuable work, *The Vegetable Kingdom*.

We must here close our very imperfect notes, and will do so by expressing a hope that for many years to come our generation may benefit by the high botanical acquirements of Dr. Lindley.

THE WHITE GRAPE CURRANT.

BY P. BARRY, ROCHESTER, N. Y.

NEVER, in this country, has the cultivation of the currant received so much attention as it does at the present moment.

We have it upon reliable authority, that all the skill and industry of our nurserymen are unequal to the propagation of a stock sufficiently large to meet the demand, and that heavy importations are annually made from Europe, not of *new*

* [This important work has been very greatly enlarged, and a new edition has just appeared in London. The wood-cuts are nearly completed for an American edition, which has been placed under our editorial care. It will probably be published in 1857, in Philadelphia and New York.—ED.]

varieties alone, but of the old sorts that have been the occupants of our gardens in some form or other for a hundred years or more.

This at first sight appears strange, but it can very readily be accounted for.

The population of this country has increased, of late years, at an amazing rate, and almost every man who is possessed of a piece of land, whether it be a small plot in the village, or a thousand acres in the far West, plants a few currant bushes.

Whether he plants other fruit trees or not, he is sure to plant currants. They thrive everywhere, and yield fruit under any sort of treatment. Above all, they bear soon, and this, especially in a *new* country destitute of fruits, is of no small importance.

In many parts of this country, *wine* is made from the currant to a very considerable extent. A gentleman in Wisconsin wrote us lately, that he had sold some to the druggists at $4 per gallon, and could sell a large quantity at that price. He is about making an extensive plantation for this purpose, and he should do so if he can get $4 per gallon for the wine, or even half that sum. The best currant wine we have ever tasted, indeed we may say the only sample deserving the name of wine, was made, last season, from the White Grape variety, the subject of this notice. It was made thus: to every gallon of clear drained juice was added two gallons of soft water, and 9 lbs. of extra refined loaf-sugar, making three gallons of wine. Nearly all the currant wine we have tasted, has been spoiled with alcohol being added in some form or other.

The currant is a fruit for the North, and we are perfectly satisfied that where the Grape cannot be grown for wine, the Currant may become an excellent substitute. This will apply to a very large tract of the Northern United States.

The introduction of improved varieties has given a great impetus to the culture of the Currant in the old States. The Cherry in size, the Victoria in lateness, are great acquisitions. The *White Grape* is by far the largest and finest *White* Currant in existence. The bush is lower and more spreading than the White Dutch, with much darker foliage, easily distinguished. There is much confusion among the White Currants; both in this country and in England, the White Grape and Dutch are confounded.

What we want above all things, in the Currant, is *size*, an important requisite in all the small fruits, on account of the expense of gathering.

We have said that the Currant yields fruit under any sort of treatment, and this is true, but no other fruit is more sensible of kindness, or less difficult to spoil by it. To have *large* crops, *large* bunches, and *large* fruit, we must manure highly, and give the shoots and branches a regular thinning and shortening in the autumn or winter of every year.

WEIGELA AMABILIS.

WRINKLE-LEAVED WEIGELA.

Nat. Ord. CAPRIFOLIACEÆ—PENTANDRIA MONOGYNIA.

WEIGELA amabilis. "*Planch. Fl. des Serres*, v. 8, p. 855."

AT our Tab. 4396, under *Weigela rosea*, we expressed our doubts as to the propriety of separating *Weigela*, Lindley (Calysphyrum, *Bunge*), from *Diervilla*, with which Siebold and Zuccarini, and following them, Walpers, unite it; and doubting, too, as to *W. rosea* being distinct from *D. florida*, Sieb. et Zucc.; and, in reply to the query of a correspondent in the *Gardener's Chronicle* (vol. for 1853, p. 536), it is answered: "We are uncertain how many species of *Weigela* are known to botanists. In the garden we have *W. rosea* (just alluded to), *W. Minderdorfiana*, *W. amabilis*, and *W. lutea*; but the last is often an *alias* of *Diervilla lutea*, and we do not know how far the others are distinct. In books also occur *W. pauciflora* and *florida*; but the latter is very nearly, if not quite the same as *rosea*." We have now to consider the question of the distinctness of the one under consideration from the last mentioned. Certainly, with flowering species of each in our hand, the eye may readily distinguish between them; but, with the exception of the stronger reticulation of the leaves of the present plant, and the undulately crenate lobes of the corolla, there is no character on which reliance can be placed.

WEIGELA AMABILIS.

1. Calyx and pistil. 2. Corolla laid open. 3. Gland from the inner base of the tube of the corolla. 4. Transverse section of ovary—*magnified*.

Such as they are, we have included them in the specific character; and we regret we have not the opportunity of consulting the *Flore des Serres*, where this species is established by M. Planchon. It is, we presume, like *W. rosea*, a native of China or Japan, but by whom introduced to Europe, we have no means of knowing.

DESCR. A shrub, probably equally hardy with *Weigela rosea* (though our plant blossomed in a cool frame in May), and with entirely the same habit: the younger branches and foliage are more or less hairy. *Leaves* opposite, larger than those of *W. rosea;* rather obovate than ovate, acuminated, serrated, tapering below into a moderately long petiole. The surface is much and reticulately veined, with impressed lines above, prominent on the nerves beneath. *Flowers* sessile, or on very short, simple *petioles*, bearing two opposite, minute *bracts*, solitary in the axils of the upper leaves, or in a terminal, many-flowered *umbel*, of beautiful rose-colored *flowers*. *Calyx* hairy, the *tube* adherent with the ovary, so slender as to resemble a peduncle, angular: *limb* of five, erect, linear, appressed segments, unequal in height. *Corolla* with the *tube* narrow, scarcely longer than the segments of the *calyx:* the *limb* campanulate, cut into five, nearly equal, spreading, waved, and crenated, obtuse, broadly ovate lobes: the *tube* is, within, hairy, and has a clavate, short, downy, conspicuous *gland*, attached to the base on one side. *Stamens* inserted at the top of the tube, shorter than the limb: *anther* oblongo-sagittate. *Style* shorter than the corolla, included. *Stigma* two to three-lobed, lobes downy.—*Curtis's Bot. Magazine.*

[This plant flowers more than once during the season, and is a very decided acquisition, lately introduced, and now for sale in many nurseries.—ED.]

REMEDY FOR GIRDLED FRUIT TREES.

BY H. B. LUM, SANDUSKY, OHIO.

BELIEVING that a few words on the above subject will be of interest to those who may have suffered from the depredations of mice in their young orchards during the past severe winter, I make the following communication, knowing, however, that my theory of saving trees injured by mice, or from other causes, is well understood, at the present time, by many experienced cultivators; yet the *modus operandi*, perhaps, may not be fully known by some of your readers whose young trees have been completely girdled by mice.

For the benefit of such persons, I will describe a plan adopted by me some years ago, for saving a girdled tree.

A friend, some time in April, expressed his regret at having lost the finest peach-tree in his garden; a tree of three inches in diameter, which had been girdled for a space of six inches near the ground. I informed him that there was a possibility of saving the tree; he furnished me with a small ½ inch chisel, a piece of coarse cloth, and a stout cord. I then proceeded to make three half-inch grooves in the tree, equidistant from each other, and running from two inches above the girdled part to two inches below.

These grooves in the tree were made perfectly smooth, and the bark above and below the girdle injured as little as possible.

I then took a straight, thrifty shoot of the tree, split it through the centre, and shaved off each edge, so as to make it exactly fit the groove when of the right length, and fitted one into each of the grooves, using care to have the outer surface of the wood on the tree, and that on the piece inserted, to exactly match.

I now made a plaster of equal parts of cow manure and soil, spread it on the cloth, and then bound it round the tree with the cord; and, after banking the earth well up against it, left the rest to nature.

The result was a partial crop of fruit on the tree the same season, and a complete circulation of bark over the wounded part the year following. Other trees than the peach may be treated in the same way, and, when the job is nicely done, the sap will flow through the medium artificially supplied, until sufficient new organizable matter is pushed out from the sides to completely cover the wound.

DEUTZIA GRACILIS.

BY EDWARD DEEKER, STATEN ISLAND, NEW YORK.

This floricultural gem is worthy a place in every collection, large or small, throughout the length and breadth of the land, as few plants can boast of the grace and beauty of this, which must ere long become a great favorite with the fair sex, both on account of its own merit and their nice discrimination of the good and beautiful.

The plant is of the easiest possible culture; a mixture of leaf mould and good loam with a little sand will be found to suit this elegant little bijou; its increase is easy, either by layers or by cuttings of the half ripened wood under a hand glass, with a slight bottom heat to hasten their rooting. As soon as rooted, pot them off singly into ½ pint pots and place them in a shady part of the green-house till they begin to grow, then place them in a cold frame to harden off, and as soon as they have filled the pots with roots, turn them out into a well selected piece of ground fully exposed to the sun, and by the fall they will have made nice little plants that will bloom the following spring. Take them up and repot according to the size and strength of the plants; they can then be stowed away under the green-house stage, and treated precisely the same as Fuchsias; as soon as the weather permits, again turn them into the open ground, and by the end of the second summer's growth they will be respectable sized plants that will be covered with their snow-white flowers through the winter and spring months, by placing a few plants at a time into the early vinery forcing-house or even the warmed part of the green-house.

They may also be obtained early by those possessing no other glass than that of their dwelling-house windows, by placing them in a south window of a warm room, and giving air on every favorable occasion, that is, when the thermometer

is above 40° in the shade. As they produce their flowers on the previous year's growth, good care must be taken in pruning them to remove none but the old wood or ugly cross shoots that spoil the shape of the plant; a liberal supply of water is absolutely necessary for the full development of its long spikes of snowy flowers.

CLIMATOLOGY.

BY A CONSTANT READER. PHILADELPHIA.

THE contributions of this country towards the science of climatology and physical geography are matters of which we Americans may justly be proud. The *Espyan* theory of rain is the only one which possesses all the requisites of a law of nature. Lieutenant Maury's Charts of the winds and currents are of world wide fame. Professor Coffin, of Lafayette College, Pa., has contributed to the Smithsonian Institute, a memoir on the winds of the northern hemisphere, which is a fine specimen of laborious and philosophical investigation; and we have from the pen of Lorin Blodget, of Washington, two memoirs on the climate of the United States, which may rank with the best European reports on the subject of climate.

The first of these is contained in the Patent Office Report for 1853, and is a masterly discussion of the climatic conditions requisite for the successful cultivation of the great staples of our country—wheat, maize, the vine, tobacco, cotton and sugar.

The second is just published by the authority of government at Washington, in the large quarto volume entitled, "the Army Meteorological Register for twelve years, compiled from the observations made by the officers of the Medical Department of the army at the military posts of the United States."

These and other authorities have been most skilfully discussed and investigated, and their results are presented in a tabular shape, and in charts containing the regions of equal temperature and equal rains.

No country in the world possesses such facilities as our own for such an investigation. Extending over the whole breadth of the continent from east to west, and through 25 degrees of latitude in the southern portion of the temperate zone; the broad plains, the high table lands, the long ranges of mountain and coast, give us every variety of climate that can be found in our zone.

The following statements, compiled from the Hyetal or rain map of the U. S., will no doubt interest many of your readers.

The eastern half of the United States—that portion lying south of lat. 48° and east of a waving line, the mean direction of which passes through the meridian 95° west long.: a region as large as all Europe this side of Russia, and south of the Baltic—is the most equably and copiously watered portion of the world of equal extent and compactness.

The southern part of this region—comprising the States of Florida, Georgia,

South Carolina, Alabama, Mississippi, and Louisiana, and the greater portions of Arkansas, Tennessee, Kentucky, and North Carolina—forms a district in which fifty inches of rain fall in a year. In the southern part of Florida and along the coast from Pensacola to New Orleans, sixty inches fall annually.

On the rest of the Atlantic seaboard, and along a tract lying on the northern and western borders of the above, is the district of from 42 to 45 inches. The whole lake country has 30 inches, and the district of 35 inches of rain lies between the two last named.

When we compare this region with the western part of Europe, we perceive that its fall of rain is twice as great. Excepting the extreme western coasts, and the regions bordering on the Pyrenees, the Alps, and the Apennines, where 30 inches of rain fall—no part of the continent has more than 25 inches; the high plains of Germany have 20 inches, and the country east of a line passing through Berlin and Vienna has from 17 to 13 inches.

These numbers are the *means* of the observations of many years, and although the whole subject of climatology is so new that perfectly reliable means are not yet obtained in the majority of cases, they are sufficiently so to give confidence to the general results.

These rains are distributed throughout the seasons, with great uniformity. Along the seaboard they are almost equally divided among the four seasons. In Florida and the valley of the Lower Mississippi, the winter rains predominate. In the Upper Mississippi and the lake country, the summer rains are in excess, and the winter rains are light.

The greatest quantity of rain falls in the United States on the Pacific coast, north of lat. 40°, where it amounts to 60 inches. One-half of this falls in the winter months, and two-thirds of the remainder in the autumn. It never rains in California, nor in the western part of Utah in summer, and the summer rains are very light along the whole region of the United States west of the Rocky Mountains.

The high table lands at the base of the Rocky Mountains and the great interior basin of Utah are very scantily watered, and many parts of those regions are dreary deserts.

The distribution of temperature forms a very interesting portion of the Report, to which I will call your attention at another time.

Valuable as these observations are, they omit one element of climate of the greatest importance to the horticulturist. He wants to know not merely how much rain falls in his district, but what is the average moisture of the atmosphere. This can readily be learned from the wet-bulb thermometer, and ought always to be taken into the account in the description of climate.

It is understood that Lieut. Maury means to extend his researches over the interior of our country, as well as over the ocean. If he will include among the elements of climate—the dampness of the air as well as the fall of rain, we think he will find zealous co-operators among our intelligent horticulturists.

PEAR CULTURE—NO. 3.

BY DR. J. M. WARD.—NEWARK, N. J.

THE delay of this article on the comparative success of the pear on the quince and its own stock, is owing, it must frankly be acknowledged, more to the reluctance we have felt to approach the examination of this subject than to any other cause. We are well aware that in what we have to say, we shall oppose the honest views of many horticultural friends—amateurs, who have liberally fed and carefully nurtured their few pet dwarfs until the love they cherish for them is duly proportioned to the labor bestowed upon them; nurserymen and tree-growers, who, believing they were subserving the cause of horticulture, have indorsed by their name and influence the cultivation of the pear on quince, till their successful general culture in their own minds was placed beyond all question. But we must beg them to remember our disparaging remarks, if such they should be called, are the result of the observations of but a solitary individual, made simply in his own fruit orchards; and should the facts thus given not be corroborated by the testimony of others, they may be set down as anomalous experience, and if not satisfactorily accounted for from mode of culture, climate, or soil, according to the linguist's saying—"exceptio probat regulam," will serve to fortify their cherished opinions on this subject. To render our statements more satisfactory, we shall give the age, size, and height of trees, and in some cases their annual product, not simply trusting to our memories for these data, but appealing to our veritable fruit record, commenced with our first planting, ten years since, and faithfully continued to the present time.

In Darlington's Memorials of John Bartram will be found a letter bearing date Jan. 1763, from P. Collinson, London, to John Bartram, in which we note the following: "What I am persuaded will prevent the *pear* dropping its fruit, if some quinces were planted in the lower part of this garden *near the spring*, and graft them with the pear—it meliorates the fruit. By long experience, all our pears are grafted on quince stocks, and succeed better than on pear stocks with us." By which we infer in the moist climate of England, regard being had in planting to the habit of the quince, which delights in moist situations, and especially with their uniformity of climate, results may be obtained, which we are not warranted in looking for in our climate of dry summers with its scorching suns—and severely cold winters with its prevailing north west winds.

Although this mode of culture was thus flatteringly indorsed in England nearly a century ago, it does not seem to have taken that hold of the public mind that it has in our country. The lamented Downing, in 1845, said: "The dwarf pear, however, it must be confessed, rather belongs to the *small garden of the amateur*, than to the orchardist, or him who desires to have *regular large crops*, and long lived trees; it is usually short lived, seldom enduring more than a dozen years in bearing." And yet such we find has been the progress of the mania for dwarf trees, in

the popular mind, that now they are everywhere sought after. The amateur and the nurseryman have not only vied with each other in its praises, but multiplied their experiments in the flattering though vain hope, that our native pears universally declared *best*, would be improved by working on quince, till such a state of feeling has resulted as to make it difficult for a nurseryman to sell to the uninitiated anything but a dwarf tree. Good pears are talked of—the press chronicles their excellences—now and then a sight or a taste of one is enjoyed, and somehow or other the impression obtains that nothing but a dwarf tree, a veritable pear on a quince stock, will produce such fruit. The consequence is that our nurserymen are driven into the necessity of working upon quince everything that can be made to grow upon that stock—and the most refractory varieties by double working are thus made to grow—"whether they will or no." This necessity seems laid upon them to fill their orders; for the charge is peremptory, "*Send none but dwarf trees.*" Pear-trees cannot be tolerated by the uninitiated; many will not accept them as a gift, for their grounds must be filled with dwarf trees. O Fashion—how inexorable art thou! Must thy *capricious, imperious* sway rule in this Eden world of horticulture, as thou art wont to do over thy votaries in the world of pleasure; if so, rest assured thy day of triumph here is short, for the period of reaction is not far distant; the signs of its speedy coming are even now visible. The disappointment at the result under the culture that *nine-tenths* of them will receive, after they have taken their place in the extended garden or orchard, will, we fear, bring such an opprobrium upon the few that succeed so much better upon the quince than upon their native stock, and are really so improved in character as to demand their perpetual use, as to discredit even them.

In the spring of 1846 I planted 40 Bartletts, on pear stocks one year from the bud. Of these, all live but such as have been lost from accident—have made vigorous growth, and are from 12 to 18 feet in height; their average product the past year was estimated at a bushel a piece. In the fall of 1849 I planted 10 Bartletts on the quince. Most of them were suffered to bear one or two pears the first season; they occupy decidedly the richest part of the same field with those first planted, have been highly manured, and enjoyed as good culture as any trees on my farm; half of the number have died, are less than six feet in height; their united product the past season was less than a half-bushel, and this the largest yield they have ever given. I will venture the opinion from their present appearance, no one of those now living will enter its teens.

In 1849 I planted 10 Vicar of Winkfields on quince in an adjoining row to the Bartletts; for four years they made satisfactory growth, and yielded good crops in view of their age and size, since which time most of them have declined in health and vigor—two have died—two others give indications of premature death. Forty other Vicars on quince were planted at the same time on a distant part of the same field, have made most wonderful growth, and have borne more or less every year,* and from the rapid development of the wood principle, give promise of long lives of usefulness and profit.

* The average height from 12 to 15 feet.

In the same year I planted twenty Louise Bonne of Jersey on quince, all of which are, as to thriftiness of growth, symmetry of proportion, healthfulness of aspect, and productiveness of habit, all that could be desired. These stand contiguous to the failing Bartletts on quince—indeed all the above are on the same plat of ground, and the physical condition of the soil, as far as the eye can judge of it, being similar.

In 1851 I planted twenty Louise Bonne on quince on another field. Great care was taken in the preparation of the soil; all the requisite conditions were secured in planting, for producing healthy, rapid growing trees, and yet to this day their truly dwarf appearance is everything else but an object of attraction to a lover of trees; have not borne in the aggregate a peck of fruit, while those planted two years previously on another field, have yielded over a half bushel a piece. Some have died—others are in the process—and all might, without regret at their loss. The cause is involved in mystery, unless it is to be found in the fact that the *subsoil* is a gravelly *loam and shale*, not as congenial to the quince as the more retentive clay substratum. One hundred Bartletts on the pear stock planted at the same time, occupy an adjoining row, and are making most satisfactory progress in the world, as well as doing the work for which they were planted.

Contiguous to these Bartletts are two rows of Onondagas, one on the quince, and one on the pear stock; those on the native stock are vigorous growing trees, forming fine heads, and commencing to bear fruit, while those on the quince are small, stunted stocks, irregular in their growth, and have borne but here and there a solitary pear. All the above described trees were obtained from the late James Wilson, of Albany, and have enjoyed the same culture with the previously named one hundred Duchess D'Angouleme on quince obtained fron Wm. Reid, of Elizabethtown, which in their thrift and productiveness have far exceeded all expectation. The better to elucidate the subject, the reader will excuse us for referring to some comments in a late number of the *Country Gentleman*, on a previous article, in which it is supposed I committed an error of cultivation, in giving to both trees, those on pear and quince, equal culture. My answer to the esteemed reviewer is, that the data given him does not warrant the conclusion to which he very naturally arrived. It is true, I found my soil "emphatically a worn out one." But liberal draughts have been made upon a neighboring *slaughter house yard*, from which some hundreds of loads of the richest nitrogenized manure have been obtained, of which, and other appropriate manure previously described, the dwarf trees have annually had a liberal quantity forked in before mulching, which, together with the detritus of the mulch, may be considered fair treatment of the dwarf trees. If this is better treatment than the pear stocks are in the habit of receiving, an error in this direction should not be used as an argument to the disparagement of the dwarf. No! the failures above described of some varieties, that ordinarily do well on the quince, and that in other portions on my own farm have succeeded to admiration, we shall be able, we think, satisfactorily to account for, and will constitute some of our objections against the general intro-

duction of the quince stock, except in the small garden of the amateur. These objections, together with a consideration of what kinds are decidedly valuable and enduring on quince, and which the most, and which the least so, and other thoughts germain to the topic, will be the subject of the next article, unless in your judgment, Mr. Editor, what has already been written in the examination of this subject is so much in advance of public sentiment, as to wake up more of a storm of opposition, than should rest, even by implication, upon the shoulders of the *Horticulturist*.

[On the contrary, the *Horticulturist* professes to be a seeker after truth. If the country has gone far enough, or too far in introducing the dwarf pear, it is time we knew it. The Pomological Society of New York, in their report, agree in the main with Dr. Ward—the pear stock for the orchard—the dwarf for the smaller garden.—ED.]

NOTES ON PEARS.

BY J. K. ESHLEMAN, CHESTER CO., PA.

As your very able contributors are giving us important instructions "When and how to Plant," on "Planting and Pruning," and on "Cultivation," may we not hope, in due time, to hear what to plant?

My mite of experience, if worthy the place, may be added to the common stock. If such valuable information as is contained in the articles above alluded to, and in numerous publications now before the public, had been easily accessible years earlier, what an amount of labor and mortification might have been spared. But the *products* of *ten* years, without these to guide, have not been too dearly bought.

The intention, at the outset, was to give a list, selected from one hundred varieties fruited here, of "VERY GOOD" pears. Most of these have fruited here twice, thrice, or oftener, in sufficient quantity to test tolerably fairly.

Every amateur will desire to possess that beautiful, *very early, small* variety, Doyenné d'Eté, and also Madeleine, neither of which can enter my list of "very good." Both will probably be superseded by Beurré Giffard.

But to my list, given in the order of ripening: Bloodgood, Dearborn's, Elizabeth (Man), Washington, Ott, Rostiezer, Hanna's, Henkel, Fondante de Malines, Chancellor, Fulton, Cämerling, Urbaniste, Kingsessing, Buffum, Liberale, Capiaumont, Flemish Beauty—recently imported under the euphonious cognomen Gagné à Heuse, Lawrence, Winter Nelis, Bleeker's Meadow, Passe Colmar, and Glout Morceau.

The list of "Best" is easily added: Tyson, Bartlett, St. Ghislain, and Seckel. Almost worthy admission to this last list, are Washington, Ott, and Fondante de Malines.

Notwithstanding its position, if I were fruiting one hundred trees for profit, three-fourths should be of Lawrence.

Downingtown, Chester Co., Pa., March 10.

NOTES ON THE CULTIVATION OF THE APRICOT.

BY WILLIAM TOMPKINS, GERMANTOWN, NEW YORK.

A MODERN writer says: "It is remarkable that a fruit of so much excellence as the Apricot, ripening before the best early peaches, should be so little known, commanding as it does the highest price in the market." Inasmuch as I have been quite successful in the cultivation of this fruit, and am willing to add my mite of practical experience for the general good, I propose to say a few words on this subject for the benefit of those persons who have failed in its culture, and those, also, who are afraid to try, on account of its great enemy, the Curculio. I will first state that I am located on the east bank of the Hudson River, twelve miles below the city of Hudson. The soil on the ridges is a strong loam, with a clay subsoil, containing a very great percentage of lime. This is the favorite soil of the Apricot; the trees grow moderately fast, and make a good, firm growth of wood, that generally stands our cold winters well. Owing to the heavy texture of the soil, the circulation or flow of the sap is not so easily excited by the effects of warm spells of weather, which we generally have during the fall and winter months, consequently the fruit buds remain dormant during these trying spells until the proper time of starting arrives. This, in my opinion, is the reason the fruit buds of the Peach and Apricot are so seldom winter-killed in this locality. The most trying time for the Apricot, with us, is when in full bloom; at that period we frequently have cold, windy weather, and sometimes frost. On referring to my journal, I find the following entries: April 16, 1854, commenced snowing very fast; wind, northwest; snow fell a foot deep; fruit buds of the Apricot just ready to burst. May 7. Apricots in full bloom; cold north wind; made ice, at night, $\frac{3}{8}$ths of an inch in exposed places. Notwithstanding the cold and frosty weather of the 7th of May, all Apricot-trees in sheltered places had a pretty good crop of fruit. Last season (1855), they produced an abundant crop, especially where they stood somewhat sheltered, setting twice as much fruit as they could with safety mature. When the fruit was half-grown, I picked about two bushels off, scarcely any of them showing the mark of the Curculio; as the fruit advanced towards maturity, it was quite evident there was not half enough taken off yet. However, there was no more taken off the trees till the fruit got ripe, but if I had taken twice the amount off, in a green state, that I before mentioned, the crop would have sold for more. The crop during the past season has not only been gratifying to my pride as a fruit-grower, but has proved eminently profitable considering the labor bestowed. From 25 trees, part nine years planted, and the balance planted within the last four years, there were taken 12 bushels of this delightful midsummer fruit, which sold, in the New York market, at prices ranging from $5 to $10 per bushel, the most of them for the latter price. At the time I bought the farm where I now reside, there was an old Apricot-tree on an adjoining farm which was then 30 years old; it was about eight inches in diameter, and 14 feet in height, with a fine, low, spreading head; this tree stood near the south

side of the dwelling-house, in a strong, loamy soil, and annually produced for its owner from one to four bushels of handsome fruit. This Apricot ripens at the usual season, is of medium size, and possesses the remarkable quality of coloring up to a handsome straw color some days before it is soft, with here and there a dash of red on exposed specimens; stone small, and nearly free, and not perforate; never cracks or rusts, as do some of the older sorts. Hardiest of all the Apricots that I am acquainted with, the bark of the tree seldom cracks or gums, unless planted in a damp soil, and in such soil should not be planted, unless well underdrained. This variety is supposed to have originated here, as it is quite different in appearance and habits from any of the other sorts that I have fruited (and I fruited quite a number). My largest and most productive trees are of this sort. One tree, 9 years planted, standing within seven feet of a building, has produced heavy crops for the last four years; there was, in 1853, one bushel taken from it; in 1854, not quite so much; 1855, one bushel and a quarter. To the nature of the soil, and nothing else, do I attribute the immunity of the Apricot from the ravages of the curculio in this locality; in fact, I consider his labor rather serviceable than otherwise.

In conclusion, I will say, brother fruit-growers, if you have tried to grow this truly golden fruit, and have been disappointed, "try again" is the motto. Some writers say: "Don't plant in warm situations, as on the warm side of a building, or other sheltered site facing the hot sun." This advice may be proper in some places, but it certainly is not here. If your soil is warm and sandy where you wish to plant, dig large holes, and put in a cart load of clay, or other heavy soil, in each hole before planting; then with a wheelbarrow load of good soil, and a few shovelfuls of compost, plant your tree, and, my word for it, you may expect to get some good fruit the third year after planting. The large amount of heavy soil in which the tree stands will not only make a bad harbor for the curculio, but will retard the season of blossoming, which is always desirable. The Apricot should, in all cases, be worked on the plum or almond stock (and be annually shortened in); if worked on the peach, it is generally short lived, and liable to all the diseases to which the peach is incident. By all means, plant in sheltered places if possible, for it is well known that a cold north wind is very destructive to this fruit, when it is in full bloom. A tight board fence, 7 or 8 feet high, affords very good shelter for the Apricot and Grape, &c. I made about 30 rods, last fall, in the following manner: A ditch, three feet deep, running east and west, was dug, the land inclining gently towards the east; posts, 10 feet in length, were then put in so as not to obstruct water (the ground being damp, but not wet); the ditch was then made half full of small stones, and filled up with surface soil; string pieces were then put on horizontally, and boards firmly and closely nailed on in a vertical position. A fence of this sort not only drains the land, but breaks off the north wind, and softens the atmosphere for many a rod on the sun side. Apricot-trees can be planted on the sun side within three feet of the fence; they should be cut back for two or three years, so as to form compact and low headed trees.

[We are much pleased with this article, and gratified to record such success with a fruit that baffles the most experienced. And yet there are instances, in our own neighborhood, which have had sufficient influence with us to induce planting more Apricot-trees every year; so far, our results have been half a dozen good sized fruits per annum. In the garden of J. Francis Fisher, Esq., there are, or were, lately, two specimens of the size of large apple-trees; they produced, annually, *many bushels* of perfect Apricots that were untouched by the curculio, and yet received no cultivation whatever. If the suggestions of our correspondent are carried out, we may yet hope.—ED.]

CRITIQUE ON THE MARCH HORTICULTURIST.

Illinois and the Prairies.—"A wonderful country" is Illinois, and the States which lie around it—incomprehensible, too, to those who have never seen the broad territory they cover. Great efforts are making by the earnest men therein, to develop the untold wealth which lies buried in their soils. Vast are the prairies, too, and all the worse that they are so. A sprinkling of "rocks, trees, and running brooks" over their vast surfaces would make them abundantly richer in the elements of agricultural life, and save—oh, how much of man's brief time, weary labor, and anxious solicitude in planting trees, and pumping water! Doctor Kennicott's *Transactions* is a commendable work, highly creditable to his own industry and research, and full of promise to the future usefulness of the Illinois State Society, and as your remarks, Mr. Editor, express all I have to say on *that* subject, I have a word or two for the managers of that useful institution. I learn that they have heretofore pursued a quite mistaken policy, in docking the pay of their *working* secretaries—the very men, in fact, to whose *brain* labor they are chiefly indebted for the good show they make in the getting up of these valuable *Transactions*.

Now, gentlemen managers, this won't do. If you mean to have a society useful to the people, and creditable to the agriculture of your State, you must have an office at your seat of government for the depository of its papers, documents, library, and *Transactions*, with a living, thinking, writing, talking *man* inside of it—call him secretary, or what you like—as the New Yorkers do at Albany, to attend to its business, and communicate with the farmers of your State on all subjects appertaining to their agricultural advancement. And beyond this, you must pay him a salary sufficient to compensate his time and labor. *Brains* are not in the habit of working for nothing, unless there is a *soft* spot in them. In that office should be the annual and other meetings of your society—the general agricultural head-quarters of the State. Your great, big State cattle shows are all very well, but they should be only an incident, or high holiday of the year, showing the results of your annual progress. Illinois is purely an agricultural State, wide in territory, and probably, the fourth in population and agricultural

wealth in the Union; and with agriculture its leading interest, why pursue a narrow, picayune policy in its development? No; that is not the way. If the funds of the society are not sufficient, compel, as you can do, your Legislature to give you the means. This saving at the spigot, and losing at the bung, is no way to perfection in agriculture. Try the thing, and my word for it, you will find it pay.

Planting and Pruning.—A most complete and conclusive article from the pen of an accomplished master. It needs not a word of comment, only to urge its diligent reading upon every tree planter once a month throughout the entire planting, pruning, and growing seasons. I hope we shall have further lessons from so instructive a teacher.

The Apple Scale, or Bark Louse.—It seems to be the destiny of us poor mortals who are sent into this troublesome world to work out our own salvation, or something worse, to find every blessing with which we are surrounded in the way of vegetable or animal life followed up by some destructive enemy, in the way of disease, or living creature of prey, to cut it down before we can enjoy its benefits. Were it not for the labor of counteracting these scourges, the great command, "In the sweat of thy brow shalt thou eat bread," would be shorn of half its bitterness. We are told by the naturalists who use the solar microscope, that even *fleas* get lousy! No wonder then that cattle, *some sorts* of humanity, and even our trees are thus affected. We are indebted to Mr. Hanford, and all others who can assist us in extirpating these marauders into the peace and quietude of our gardens and orchards. Thorough scraping, and soapsuds, or lye washing, with *good culture*, are the best methods I have tried. It is a pottering job, and I hate it, but it *must be done*, or the trees will suffer.

Ornamental Iron Work.—I like these specimens, for they don't require much paint, and they never *rot*. With stone foundations, bedded in the ground below frost, and the posts well drilled and leaded into them, *they stand forever*—that is, as long as our *human* forevers are likely to want them.

The Pea-Bug and its Allies.—Yes; the "allies," with the "bug," are quite as fatal to the pea as allies of another kind, with the Turks, are to the Crimea—a "pea" of another sort; but which they, "the enemy," are equally ready to appropriate, as we are the less important vegetable. I'll file away this *cure* in the same pigeon-hole with the bark louse.

Our Native Wines.—In the simplicity of my younger housekeeping days, I used to drink wine, for years, as a daily beverage at the dinner table. But when I found that, added to the folly of imitating a senseless fashion, it did me no good, and more, that the bulk of the foreign wines in this country were a vile compound of drugs, alcohol, and the cast-off washings of European wine-presses, I let them alone; yet, I do not embargo the tastes or the appetites of those who choose to indulge "temperately" in the use of a health-promoting, or life-enjoying stimulant—if such a thing exists. The "native" wine interest is getting to be a leading one in the neighborhood of Cincinnati, and if men will use it, I commend

the *home* article over the foreign, by all means. I shall not tilt an argument with Mr. Buchanan on the *fact* that native wines will *do more* to promote temperance than the "Maine Law;" but only say, that I have seen men rise—or *try* to rise—from the dinner table, as well as from various other sittings, quite as "glorious" as Tam O'Shanter when hob-a-nobbing over their ale with his "drouthy crony," Souter Johnny, and that, too, from their free libations of "native" wine, bottled at Cincinnati—the "pure, sparkling" article itself!

Good and Bad Pruning.—This, with your capital illustration of the two methods, is so conclusive, that anybody with a thimbleful of brains can understand it better than if I should comment a whole chapter upon it.

Sweet Apples.—Long ago, when a youngster, I was dilating to an excellent housekeeping lady friend, on the extraordinary virtues of baked sweet apples in boy's bread and milk; and in addition to that, how good the raw ones to fat pigs, and geese. "Yes;" she replied, "and they are just as good to fat children, and grown people on as pigs!" I have believed it ever since.

Notes on Pears.—Next year Mr. Eaton can probably tell a very different story about the growth and flavor of many of these same pears. The variety, soil, cultivation, climate, and season must determine what, in the way of pears, the grower of them had best cultivate. I have attended sundry consultations of the savans on this subject, and am still in doubt, beyond half a dozen standard varieties.

The Lowell Wire Fencing.—Too low in height, too expensive for farming, and too frail for *street* fencing in the towns. Within the *outer* inclosure, they are sufficient, and quite ornamental. For economy, and good appearance, in *that* way, and for screens to run vines and climbing plants upon, I hope they will be adopted.

JEFFREYS.

WHICH ARE THE BEST ROSES?

BY ROBERT BUIST, PHILADELPHIA.

MR. EDITOR: The above question is very frequently proposed, and is much more concise than any reply that can be given. We would say that there are none supremely beautiful, if they are not abundantly supplied with free soil, and well incorporated with very rich material, such as decayed leaves, old, decayed manure from the piggery or barnyard; or, where there is a deficiency of these, rich water, twice a week, must be applied. "What is rich water?" There arises another question. If you will not consider me too tedious, I will give you in detail how it is manufactured. I have a half cask, containing about 30 gallons of water, into which I put 6 lbs. of guano, half a bushel of horse droppings, or a peck of chicken manure; either of these, just as convenience suggests. I allow the portion selected to remain in the tub 24 hours, when it is stirred up, and from which I give my select plants a copious watering twice a week from May till the middle of June. The soil round the plants must be frequently stirred, and kept

clean, and properly cared for, neatly tied up, and, when in bloom, shaded from severe sunshine. Such is the treatment bestowed upon the finer and rarer sorts.

We are confident that there are 700 varieties cultivated in the United States, and we are also confident that 100 would embrace every color and character among them, placing entirely in the shade many of the so-called new sorts. Permit me to hand you for publication a few from each section of the perpetual or semiperpetual blooming varieties. You will see that I have not placed the eulogized Augusta amongst them, considering it only the solfatare, or a reproduction of that variety; this conclusion is arrived at after having had it three times from the firm that sent it forth as the finest rose in the world.

REMONTANT, OR HYBRID PERPETUAL ROSES.

Auguste Mie; a fine, glossy pink; a new and exquisite rose, of perfect form.
Baron Prevost; bright rose, large size; strong growth.
Baron Halley; reddish purple; very perfect; globe shape.
Geant des Batailles; brilliant scarlet crimson; an abundant bloomer—all qualities good.
Jules Margottin; bright crimson; a companion to the former; a new and magnificent rose.
Lion of Combats; crimson purple; large, compact form; very fragrant.
Louise Peyronny; bright pink; finer than La Reine.
Marquis Boccella; the most abundant bloomer; of a light blush color.
Madam Fremion; bright carmine; fine form.
Madam Rivers; pale silver blush; very perfect cup shape.
Queen Victoria; very large; blush white, tinted with pink; a magnificent flower.
Pius the 9th; deep purple crimson; a strong grower and profuse bloomer.
Wm. Griffiths; rosy lilac; very large; cup form; quite distinct; a noble flower.

TEA, OR TEA SCENTED ROSES.

Adam; flesh color; very large; cup form.
Devoniensis; lemon white, tinted with pink; very fragrant; often called the Magnolia Rose.
Gloire de Dijon; very large; buff color; quite new; was sent out as a fine yellow; because every person wants a yellow monthly rose.
Goubault; bright rose, tinted with blush; very fine.
Julie Mansais; lemon white, with yellow centre.
Laurette; salmon, tinted with rose; large and fine; quite new.
Madame Bravey; pure white; a good grower, and fine bloomer.
Safrano; buds, before being fully opened, are of the most beautiful apricot color; very desirable.
Souvenir d'un Amie; rosy pink; very large, handsome form, and one of the grandest of roses.
Vicomtesse de Cazes; yellow, with deeper centre; a very delicate grower.
Willermoz; creamy white, with salmon centre; a new and beautiful rose.

NOISETTE ROSES.

Amie Vibert; pure white; a very delicate grower.
Cloth of Gold; pale straw color, with yellow centre; a noble rose, of exquisite odor, and strong growth.
Fellenberg; red, changing, in the autumn, to bright crimson; very profuse.
Isabella Gray; BRIGHT YELLOW; very highly scented; a new rose, from the "sunny South."
Jaune des prez; yellow and buff, tinted with rose; of spicy fragrance and free growth.
Lamarque; lemon white; very large and splendid.
Ophirie; salmon and orange; a vigorous grower, with fine, dark-green, glossy foliage.
Octavie; bright red; a rare variety.
Phillipart; peach blossom color; small flower, in large clusters; a strong and hardy rose.
Triumph de la Duchere; pale rose, blooming in large clusters; very profuse.

BENGAL, OR DAILY ROSES.

Arch Duc Charles; large; rose changing to crimson.
Agrippina; perfect globular shape; brilliant crimson.
Cels; blush, pink centre; a very profuse bloomer.
Jacques Plantier; shaded rosy crimson.
Lady Warrender; pure white.
Louis Philippe; globular; crimson, with paler centre.
Lucullus; vivid dark crimson.
Madame Breon; bright, waxy rose, large and fine; a very strong grower.
President d'Olbecque; cherry-red; fine form; very profuse.

BOURBON ROSES.

Acidalie; the only rose that is nearly white amongst the Bourbons.
Apolline; pink; surpasses the Hermosa in form and clearness of color.
Bouquet de Flore; bright rosy carmine; a very strong grower.
Henry Clay; bright carmine; very large flower, though not a perfect form.
Louise Odier; bright rose; beautiful cup shape.
Queen; fawn color; a profuse bloomer, but not a very free grower.
Sir Jos. Paxton; very bright rose; strong growth; as yet, very rare.
Souvenir d'Anseleme; bright red; a strong grower.
Souvenir de Malmaison; pale blush; the largest and finest of this group.
Vorace; deep purple crimson.

[Mr. Buist is "authority" on the Rose; his communication is timely and to the point. The late winter has been so severe upon most roses that a new stock will be required in many gardens, and fortunate will be those who can procure the novelties here noted. The amateur will not neglect the CRESTED MOSS.—ED.]

A THIRD WINTER ON THE NEW EVERGREENS.

BY HENRY WINTHROP SARGENT, WODENETHE, FISHKILL LANDING, DUTCHESS CO., NEW YORK.

I HAVE, upon two previous occasions, through the pages of the *Horticulturist*, given my experience of the effect of our winter upon the new evergreens, and have recently had so many applications for information as to the influence of the present winter upon this class of trees, that, to save myself some trouble, I propose, with your consent, to answer these questions through your valuable journal.

It is, I presume, unnecessary to remind your readers what sort of a winter we have had, both as to the degree of cold, and the extent and continuance of snow—but the many are not, perhaps, aware that, from this very circumstance, all low plants within 12 or 15 inches of the surface of the ground, have wintered better than any previous year of my experience; and, as all the newer and rarer Evergreens belong *so far* to this low order, they have come out through the snow wonderfully green and bright, especially when side by side. We see white pines, hemlocks, and even our common roadside cedars, scorched the color of brick-dust. The winter has been favorable in two respects; in the first place, an even temperature, without much frost, has been preserved through the covering of snow about the roots and the neck of the trees; and the cold, though severe, has been uniform. I will conclude these remarks by simply observing, that in my neighborhood, all Evergreens, from the rarest to the commonest, are (above the snow) of a color varying from that of gingerbread to that of a dull brick. I do not perceive that Deodar cedars, and cedars of Lebanon, are more browned than hemlocks and white cedars, and the buds on all are uninjured. There is, upon my place, one remarkable exception to this universal *browning*. The cryptomerias—which have been entirely uncovered all winter, are not injured; in previous years, they have been well protected, and I usually lose them. May it be that this plant is an exception to the advantage usually gained in protecting half-hardy plants?

PINUS.—Hartwegiis, destroyed.—Insignii, abandoned as an impossibility with me.—Laricio, untouched.—Lambertiana, brown above; green below the snow.—Macrocarpa, brown above; green below the snow; buds good.—Montezuma, brown above; green below the snow; buds good.—Ponderosa, untouched. I think this more hardy than our white pine.—Sylvestris, uninjured.—Austriaca, uninjured.—Pinaster, buds good; foliage changed.—Gerardiana, green, but protected all winter by snow.—Maritima, untouched.—Excelsa, untouched; superb tree.—Cembra, untouched. Of these 14 varieties, I think I can grow all except the first two.

ABIES.—Alba, hardy.—Argentea, hardy.—Brunoniana, abandoned.—Canadensis, hardy.—Clanbrasiliensis, hardy.—Douglasii, brown, but buds good.—Excelsa, hardy.—Lezoensis, leader gone; green below snow.—Hudsonii, below snow, uninjured.—Morinda, little browned.—Menzesii, little browned.—Pygmea, hardy, I think, but entirely under the snow.—Pichta, perfectly untouched.—Pichta Pendula, browned. I do not know whether this is Smith's Pendula or not.—Pinsapo, untouched.—Orientalis, brown above, green below the snow.—Cephalonica, untouched. Of these 17 Abies, I think the Brunoniana the only one I cannot grow.

PICEA.—Pectinata, hardy.—Fraseri, hardy.—Webbiaia, hardy; apt to lose its leader.—Pindrow, hardy.—Normandiana, hardy, and beautiful.—Nobilis, perfectly green.

JUNIPERUS.—Virginiana variegata, hardy.—Sabina, hardy.—Sabina argentea, hardy.—Sabina aurea, hardy.—Tamariscifolia, hardy.—Thurifera, hardy.—Pendula, hardy; beautiful.—Excelsa, hardy.—Hibernica, hardy.—Squammata, hardy.—Recurva, hardy.—Chinensis, hardy.

Cupressus.—Foliis variegatis, hardy.—Funebris, brown above, green below the snow.—Macrocarpa, certainly the most desirable and beautiful of the Cupressi; but, I am afraid, mine is killed to the ground. Wherever the Taxodium Sempervirens will grow, this, I think, will also.—Horizontalis, uninjured.

Taxus.—Baccata, a little browned, but safe.—Dovaston (weeping), a little browned.—Elegans, uninjured.—Elegantissima, uninjured.—Adpressa, little touched.

Thuja.—Aurea, beautiful; untouched.—Thuja variegata, untouched.—Thuja Orientalis, perfectly hardy.—Thuja Siberica, perfectly hardy.—Thuja Plicata, perfectly hardy.—Thuja Pendula, or filiformis, very hardy, and very desirable.

Libro-cedrus Chiliensis.—Uninjured; a great acquisition.

Cedrus.—Libani, hardy, *though quite* brown this winter.—Deodara, hardy, *though quite* brown this winter.—Deodara viridis, hardy; less injured.—Africanus, hardy.

Araucaria.—Small plants; under the snow all winter; perfectly green.

Cryptomeria Japonica.—Plants unprotected, looking greener than those protected.

Cryptomeria Japonica—*Nana*, hardier than preceding.

Cryptomeria Japonica Viridis, ditto.

Cephalotaxus Fortuni, Male and Female, have gone through the winter beautifully, with only a few leaves round them. These trees, and the Libro cedrus, are the very greatest acquisition of last year, I believe, of the newer things.—Saxe Gotha Conspicua, and Fitzroya Patagonica, will prove hardy; perhaps Pordocarpus Taxifolia.

Cunninghamia Sinensis.—Just manages to hold its own year after year; I have little doubt it would thrive planted mainly in sand on an elevation well drained, and in shadow of a pine wood.

Torreya Taxifolia.—Is perhaps the most satisfactory of the rarer Evergreens. My specimen is 12 feet high, and uninjured, except the leader is a little whitened.

Of the Evergreen shrubs that stand here without protection, are the Rhododendron, Ponticum, Catawbiensis, and the Belgic hybrids, and the Ferrugiani Andromeda floribunda, Ilex Lancifolia (Latifolia I have given up), Cotoneaster Buxfolia, Kalmia Latifolia.

In recapitulation, I think I can grow upon this place 73 of the newer Evergreens, exclusive of Evergreen shrubs, and of 12 varieties of Norway Spruce not yet wintered out, all dwarf—never, I understand, at the end of 50 years, even exceeding *three or four feet high*.

I recommend, among the new things, the Pampas Grass—a superb exotic—growth, of a sort of reed, 6 to 12 feet high, and very ornamental, and Chamærops Chusan—a new *Palm*, said to be entirely hardy in England; Des fontainea spinosa, and Eugenia Ugni, both Evergreen shrubs of rare beauty, and said to be quite hardy; the latter bearing a fruit.

Very truly yours.

April 9, 1856.

[The above truly valuable and reliable information, will be received by its readers with great satisfaction; it agrees entirely with our own more limited experience; the native hemlock has been as severely handled, in our neighborhood, as many of the rarer evergreens, and has not stood so well as the cryptomeria. The same information, in the main, is received from Cincinnati, from our correspondent, R. Buchanan, Esq., so that there is much reason to be gratified with our prospects in the cultivation of evergreens; we are now more advanced in the knowledge of what will suit us than ever before. Mr. Sargent's article is timely, and highly useful.—Ed.]

FOREIGN NOTICES.

New Plant.—Achimenes magnifica; *alias* Locheria magnifica. *Planchon and Linden in Fl. des Serres*, x. t. 1013.—Most people would call this an Achimenes, of which it has all the habit, and, as far as we can discover, all the essential points of structure. We must, therefore, object to the introduction of a new name for which there is no sort of necessity, either botanical or horticultural. It is said that Locheria differs from Achimenes in having the cup in which the ovary is seated of a membranous instead of a fleshy texture; so that the subdivision of genera is now to be made dependent, not only upon the mere thickness of an organ, but what is worse, of one of no functional importance. To that doctrine few in this country will subscribe.

Putting aside names, we must add that the plant before us was introduced from Popayan by Mr. Triana, one of the collectors employed by Mr. Linden. It would appear from the published plate, a figure of which we copy of the natural size, to be extremely handsome, with thick, velvety leaves, and large flowers of a rich, deep red color, spotted with lines of black purple. It may be compared to a gigantic form of Achimenes hirsuta or pedunculata; like which it has the scaly rhizome and little bulbs so common among plants of its class. We observe that Mr. Linden has it in his new catalogue under the name of Locheria magnifica, at the price of 20 francs.

How to treat Plants which have been dried up, as Orange Trees, &c., received from abroad.—It may, perhaps, be worth while to detail the means by which a plant apparently quite dead from drought was restored to vigorous growth. A large Gardenia florida was received in such a condition as to appear worthless. The more succulent part of its stem and branches were withered; its leaves shrivelled up, and the whole aspect of the plant resembled a newly-planted evergreen killed by the March winds. There were many circumstances which rendered it desirable to restore the plant if possible, and what seemed hopeless was attempted, and, as the sequel will show, accomplished. As a preliminary, the plant, pot and all, was immersed in a tank of water, sufficiently large to cover every branch. Here it remained until the bark became plump by absorption, and after being removed, and the now saturated soil washed from its roots, leaving them as bare as the branches, it was repotted in as small a pot as would conveniently hold the roots, using a compost suitable to the nature of the plant. The entire stem, as well as the main branches, was now enveloped in moss, and kept constantly damp by syringing. Of course the plant was shaded on sunny days. The pot being plunged in a gentle bottom-heat, and a damp atmosphere maintained around the branches, in a short time the leaves began to drop off—a certain sign, under the circumstances, of returning health. Two or three weeks elapsed, and tiny buds began to push; leaves and shoots followed, and the plant was restored. True, most of the smaller

branches never recovered; nor was that of much moment, as the vigorous growths from their bases more than compensated them. In all cases of this kind, very gentle stimulants must at first be given, and these with caution. Heat, injudiciously applied, or without the necessary adjuncts, will often accelerate death rather than restore to health; and the same holds good with respect to both bulbs and seeds. The latter, when the vital principle is become dormant by age, will often decay if subjected to the excitement of a tolerably high temperature, when, if sown merely in a cool frame, they vegetate freely. And so of bulbs: if these are received in a dry and shrivelled condition, the first care should be to restore the lost juices; when this has been accomplished, the vegetative principles may be aroused, but not before. These necessary precautions are not always attended to, and the consequences are the loss of many plants which might have been saved. Even in the cultivation of the ordinary hyacinth this is not sufficiently observed, especially by amateur and lady cultivators. When, as is often the case, the bulbs have lost much of their plumpness, they should either be placed, for a day or two, in damp sand, or enveloped individually in a piece of moistened flannel, before being placed in the glasses. And even when they are there, it is an excellent plan to cover the crown of each with a piece of thick blotting-paper or thin cloth, kept moist by a few threads connected to it, and touching the water below. I have seen the best results follow this plan.—G. W. L.

A Model Flower Bed.—A quantity of larch stakes, three feet long, and two inches and a half in diameter, were driven, side by side, eighteen inches into the ground, leaving one foot and a half outside in an oval shape, eighteen feet long, eleven feet wide over the centre. The interior was filled up rather above the level with the soil. Around the stakes, outside, was planted, pretty thick, common Ivy, which, when I saw it in September last, formed a complete mass all round the bed, and kept the decaying stakes in position.

Now for the planting and arrangement of this raised bed, which, you must understand, was designed as a break to a heavy part of the ground, and, as Mr. Abbot, the gardener, here remarked, "with telling effect."

Immediately down the centre were six plants of scarlet *Salvias;* at each end of those was a plant of the variegated variety of *Salvia fulgens;* encircling those was the blue *Ageratum;* again, around those the *Frogmore Scarlet Geranium;* then a circle of yellow *Sultan Calceolaria,* which brought it to the edge, around which was planted the white *Ivy-leaved Geranium.* This was allowed to hang over quite down to the turf; and being full of white flowers, they beautifully blended with the dark green of the common Ivy and yellow Calceolaria above; then, again, with their immediate neighbors, and so on to the top of the Salvias, forming as rich and gorgeous a bank as, I am sure, none of your readers would ever regret imitating.—*Cottage Gardener.*

Productiveness of a Dorking Hen.—As I am prepared to prove the truth of the following statement of the performances of a hen, nearly pure Dorking, in the past year, I send it to you for insertion, thinking it may interest some of your numerous poultry readers:—

On the 12th of January she hatched thirteen chickens; she reared twelve, and left them at eight weeks old. Laid twenty-three eggs; sat on seventeen; hatched them all, and reared them. Laid again nineteen eggs; sat on and hatched thirteen, and reared them all.—John Baily.

Nature Printed Ferns. By Mr. Thomas Moore and Dr. Lindley.—This must be accepted as the *greatest* book of the year—23 by 15 inches: nor does its value rest on its size, for, with conductors so eminent, it were strange indeed if it proved to be other than it is—faultless.

Gutta Percha.—Great interest naturally attaches to a plant furnishing an important material like gutta percha, which has been found to be adapted to so many useful purposes. The concrete juice of the tree was known in Europe and America before the tree which produced it was described. Mr. William Lobb, the indefatigable collector, had the honor of first forwarding dried specimens, from which it obtained a name and station in systematic botany; the name is Isonandra Gutta, of the natural order Sapotaceæ.

It is a large tree, attaining a height of 40 feet, and sometimes a diameter of 3 or 4 feet. The leaves are alternate on the branches, somewhat leathery in texture, and obovate, entire in outline, attenuated at the base into the largish petiole, by which they are attached; they are green on the upper side, and orange shining beneath. The flowers are small, each singly stalked, more or less drooping, and growing in fasciles from the axils of the leaves; they are subrotate, with a short tube and six ovate or spreading lobes; twelve prominent stamens are attached round the mouth of the tube. The fruit is egg-shaped, each cell with one ovule. It is a native of Singapore, Borneo, and other Malay islands; its timber is of no value, the wood being soft, fibrous and spongy, pale colored, and traversed by longitudinal receptacles or reservoirs, filled with the gum, forming ebony-black lines. From the fruit is obtained a concrete and edible oil, which is used by the natives with their food. The tree is not hardy, and its beauty is scarcely sufficient even to introduce it into our hot-houses, except as a curiosity.

Of the various uses to which gutta percha is already applied, the following lines, written by a visitor to the great manufactory in London, will convey an idea, though he has by no means exhausted the catalogue:—

1. "My Parent died when I leap'd from her side
   To fill mankind with wonder,
2. And now I abound, in the wide world around,
   The green sward above and under.
3. I hold the flower in the sunny bower;
4. I shelter the dead in their graves.
5. I circle the hair of the maiden fair;

1. The gutta percha trees are tapped and they then die.
2. Used above and below ground.
3. Flower-pots.
4. Lining for coffins.
5. Bonnet-caps.

6. And bid defiance to knaves.	6. Policemen's caps.
7. The miser his gold often gives me to hold;	7. Money-bowls.
8. I aid to extinguish the fire.	8. Water buckets and engine-pipes.
9. I am chased o'er the green, when the schoolboy is seen;	9. Cricket balls.
10. I wait at the toper's desire;	10. Mugs.
11. I ride on the wave, the sailor to save, When he shrieketh aloud in despair;	11. Life-buoys and boats.
12. I whirl the machine, whose arms dimly seen, Hiss as they fly through the air.	12. Machine-driving belts.
13. I have been tried and am cast, with felons at last;	13. Indestructible vessels for the use of prisoners.
14. I am balm to the wounded and torn.	14. Balsam for slight wounds, instead of sticking plaster.
15. I rival the oak, (16) the tell-tale I cloak;	15. Ornamental mouldings. (16.) Coating of the Telegraph wires.
17. I am fashion'd as high and low born.	17. Medallions and casts of celebrated and notorious persons.
18. I constantly mind the sightless blind.	18. Cord for window blinds.
19. Many garments my long arms bear;	19. Clothes-lines.
20. By the sick man's bed, (21) by the ship's mast head— In various forms I am there.	20. Utensils for sleeping apartments. (21.) Cordage and speaking-tubes.
22. Deep in the earth, though unseen, is my worth; I faithfully serve mankind.	22. Pipes for draining, &c.
23. I hear the whisper of the softest lisper;	23. Acoustic tubes.
24. And hold that which traceth the mind!	24. Inkstands.
25. When the emigrant lands on far-off strands, Perchance he treadeth on me.	25. Soles of shoes.
26. On the rich man's table, (27) in the horse's stable, My forms you may frequently see! Now I challenge your mind my secret to find,	26. Ornamental dishes. (27.) Buckets and harness.
28. Though I travel along by your bed.	28. Noiseless curtain rings.
29. I come from the south; (30) I may dwell in your mouth;	29. From Singapore, &c. (30.) For filling decayed teeth.
31. Or may rest on the top of your head."	31. Sou'-wester hats.

Ignorance of Common Things.—It is indeed to be deplored, that whilst the clergy and gentry are founding schools in almost every village, and duly providing "trained" masters and mistresses to instruct the rising population in what is generally considered the most necessary branches of learning, that botany, or, as your remarks last week have it, "the use of the common things which surround them," should in no shape find a place in their studies; but the mere study of botany from books is not sufficient to bring the minds of young children, such as are usually found in village schools, to understand plants in any useful way; their minds would become bewildered in the maze of technical terms. My impression is that the instruction should consist in simple lectures, illustrated by the things themselves, assisted by a simple question and answer book, got up without Latin or technical terms; and, as few schoolmasters or mistresses are at present sufficiently acquainted with the vegetable kingdom to impart such instruction to their pupils, let the patrons of these schools call in the aid of their gardeners, who are, or should be, sufficiently well informed to impart information enough on the subject, to lead the minds of the pupils to inquire and desire to know more of things with which they have every day to do: that done, books will be resorted to to feed the growing desire for knowledge, and when such a system gets fairly into practice, such deplorable accidents as you alluded to would doubtless become extremely rare; besides, a knowledge of botany would administer to the enjoyment of life, for, at every step, the botanist meets something to attract and interest him, at every turn a friend, an old acquaintance in every familiar plant that strikes his eye; silent and unobtrusive, but not the less a friend, it abstracts him for a while from the cares and anxieties of life.—H. Howlett, *Haverland.—Gardener's Chronicle.*

EDITORS TABLE.

GERMANTOWN, N. Y., March 22, 1856.

DEAR SIR: On the night of the 25th of December last, we had an icy rain; the following morning, everything was completely enveloped with ice; branches of fruit-trees no larger than a straw, were frequently seen increased so much in thickness, as to measure an inch in diameter, and fruit trees, in many instances, were laden with it so heavily as to be completely crushed with its weight. This ice remained on the fruit-trees about ten days, the weather, in the mean time, being severely cold; the ice never thawed off, but froze and shook off with the wind. Its remaining on so long has been very injurious to the fruit buds of the peach and apricot, completely spoiling them in this locality.

Yours, truly, WM. TOMPKINS.

BURLINGTON, IOWA.

J. JAY SMITH, ESQ.—MY DEAR SIR: If Jeffrey's Red Raspberry, alluded to in his review, in the March number of your magazine, prove to be "as hardy as a currant bush," it will be an acquisition to us worth many dollars.

The ravages of the past winter have been very severe. The damage cannot, as yet, be ascertained; but one feels sad enough in passing along the garden walks, and looking at the destruction wrought among the shrubbery. Only think of it—from December 24 to about the same date in February—two long, dreary months, with the mercury hybernating in the bulb of the glass, only to note, if possible, a greater degree of cold. It is useless to name dates, but, if 60 days of winter, below zero all the time, and, occasionally, even as low as 32° (we had it on two occasions, January 9, and February 15, at that), does not destroy all our hopes of a fruit crop, it will be because our trees are hardier than we now regard them. We usually have the mercury as low as 12°, 14°, and even 20° below zero, once or twice in the course of the winter, but our oldest residents cannot call to mind such continued cold as we have recently experienced. Even on the 9th and 10th of the present month, we had it 10° and 11° below zero. Your theory, in your leader, with regard to Illinois, of a tropical summer and arctic winter, is especially true of Iowa. Would it not be as well to note these facts, that fruit growers, intending to come this way, may see both sides, as is but fitting and proper? It is to be hoped that due record will be made of such hardy fruits as have escaped this winter, as guides for cultivators hereafter, both here and in more northern latitudes. Your valued periodical grows monthly in interest, and in the regard of its many readers in the West.

P. S.—Jeffrey's note of warning respecting our fruits, soil, &c., is not unheeded; but, if you can tell us more than we already know of blights—both sun and frozen sap—of curculios, apple borers, and the like, I trust it is to suggest some remedy for the pests. We have almost abandoned plum culture here, as well as cherries, except a few pains-taking experiment-makers, who yet hope for success. Blights, too, of all kinds, have stricken down many a hundred beautiful and brave dwarf and standard pear-tree, to the profound grief of the owners. Still, when one does succeed here, his triumph is complete. As to the flavor of our fruits, ask Mr. Barry; it is generally good enough for our visitors as well as ourselves. If 32° below zero has not utterly destroyed our pear buds, I trust "Jeffrey" will see, at Rochester, some of their products, even if none of the producers are there.

I remain, very respectfully, J. F. TALLANT.

GOSSIP.—The coming event, expected with anxiety, but fully expected, is *steam ploughing*. Who doubts it? The same people who doubted ocean steamships and the telegraph. The agricultural papers describe a *machine* for sheep-shearing; we have seen one for clipping hedges.—The Southern papers speak very highly of Mr. Axt's Catawba wine, made during the past season. Mr. A. is planting vineyards in various counties, at so much an acre.—A

correspondent says he has great confidence in the benefit to be derived from cutting branches from plum-trees, when in full bloom, to make them productive; the process has no influence on the curculio.—Keeping bouquets is an important consideration. Let two clusters of fresh gathered flowers be introduced into a sitting-room; place the one in the mouth of a narrow-necked jar of water, and arrange the other over a shallow dish of water, and it will be found that the latter will be perfectly fresh, days after the former are faded. If a larger dish, with water in it, is placed below, and a bell glass set in the water, so that no external air can enter, the flowers may remain perfect, say camellias, &c., for *whole weeks*, because they are surrounded by air incessantly moistened by vapor from the plates.—If you want to be successful in transplanting, don't be afraid of working in dull weather. If you are shy of a "Scotch mist," buy an India-rubber mackintosh. Nothing is so cruel to many sorts of trees as to let their tender fibres parch up in a dry wind, or a bright sun. Such weather may be fun to you, but 'tis death to them.—A Neapolitan ambassador, at the English court, said, that during a residence of ten years in London, he had eaten but one ripe fruit, and that was a *baked apple!*—The mistletoe is sometimes found on trees in New Jersey, as well as further south. The berries are transparent, and enliven the whole plant.—There is no plant lately introduced, that will give more pleasure to the many lovers of fine shrubbery than the Wiegelia rosea; the amabilis is probably little inferior. These, and the various spireas, are our best treasures for early blooming—displacing the lilac and other old favorites. —We have, in Philadelphia, two successful cultivators of pine-apples, Mr. Anspach and Mr. Tucker. They produce as good pines, at least, as are ever seen in Covent Garden market, or on the tables of the nobles of England, from which country it is best to import plants; those coming from the islands are apt to be so infested with vermin as to be a nuisance.—The most skilfully constructed bouquets are those with the brightest colored of the flowers in the centre, gradually decreasing in intensity of color from that centre to the edges of the groups. *One* prevailing color of different degrees of intenseness will prevent a patchy or spotty appearance. If bright crimson roses form the centre, paler roses should be near on either side as well as above, and the same will hold good of geraniums, &c.—Some of our correspondents insist that the Rhododendron figured in the January number, is Catawbiense. It may be so, but we shall not pronounce upon it till we see the plant in bloom—principally because Mr. Van Buren, who communicated the description and the colored drawings, and who has the opportunity of inspecting it carefully, and who is familiar with the Catawbiense, believes it is *not* that species.—Mr. Rivers has exhibited, in England, dwarf cherry-trees on the mahaleb stock, only one foot high, that have each borne nearly a quart of fruit. Our own dwarfed cherries exhibit a great inclination to grow beyond dwarfing management, probably for want of root-pruning, which has not yet been attempted. Remember that the ashes of anthracite coal is a good manure for cherries; they do not require much enrichment of the soil.—The apricot may be dwarfed by budding it on the sloe.—The interest felt by so many landholders in this country in the cultivation of fruit, causes an amount of practical intelligence to be devoted to the subject that has no parallel on the other side of the water. It would be impossible to assemble the same number of practical scientific cultivators in any other country, as will meet, for instance, at Rochester, the next autumn. These conventions are rapidly clearing up vexed questions, and establishing truths.—However unfortunate the late winter may have been to private gardens, the nurserymen must not complain; there are few who will cry, "Hold! enough!" and orders will flow in for recruits to supply the place of the soldiers killed off. Roses, especially, will be in demand.—Tulip beds may be kept in perfect bloom for three weeks, by shading them with any kind of sheeting fastened to a wooden frame. Without this their bloom is short.—All sensible people believe, by this time, in the power and virtue of the individual home; combinations for health, and air, and trees, and sunshine, need not partake of one iota of the "community system," which, till human nature is altered, and that never will be *in our time*, is found, in practice, utterly at variance with the constitution of the human mind. Men do combine satisfactorily to pave, light, and procure good water, without a quarrel; then why not unite to have a handsome and healthy country park, instead of so many compacted towns as we often see?—A family in Scotland has been poisoned by a rustic servant mistaking monkshood for horseradish; the cook, also, not knowing the difference, scraped the former, sent it to the table, and poisoned the guests, three of whom died in an hour or two. The *Gardener's Chronicle* says this comes of people being barbarously instructed, and employs the occasion to enforce the necessity of instruction in common things.—The Herbaria, belonging to the London Horticultural Society, has been brought to the hammer; they were the collections of the officials sent abroad, and were made in order that the officers might be able to ascertain the names and value of the seeds which were sent home; that purpose served, they became mere

records of past discovery, of very great botanical interest, but with no further bearing upon the objects of their owners. Douglas's collection, formed in Northwest America and California, amounting to 500 species, was purchased by the British Museum for $150. Hartweg's, for $100. The whole realized about $1,200.—The *Independence Belge* informs its readers that "in the Belgian colony of St. Thomas, a potato has been grown, weighing more than 50 lbs." Good-by, big gooseberries.—Fronds of ferns are employed to embellish baskets of fruit for the table; they give the fruit an ornamental and somewhat foreign appearance.—The forcing of shrubs is most successfully managed when the pots are full of roots from early potting, and these roots receive the advantage of a mild bottom heat before a higher temperature affects the buds.—Hives, in which swarms of bees of the previous year have died, should be kept clean and dry, and out of the way of mice, for the purpose of hiving swarms in them. The time this precaution saves a swarm can scarcely be credited.—Do fishes hear? is a question just now debated abroad; the conclusion come to seems to be that they do not; concussions of the air by thunder, and so forth, startle them, but the sense of hearing is believed to be wanting.—An ornamental object for a window, or room, may be made by placing a large pine cone in the mouth of a glass having a small quantity of water at the bottom. The scales of the cone are first slightly opened, and lentil seeds are dropped into the openings. Water is sprinkled over the cone as may be necessary, say twice a day, and, in a short time, the lentils send up their small green shoots, and cover the cone. The scales are opened by placing them in any moderately warm place for short time.—In Lindley's *Theory of Horticulture*, it is stated that a M. Otto, of Berlin, employs oxalic acid to make old seeds germinate. The seeds are put into a bottle filled with oxalic acid, and remain there till the germination is observable, which generally takes place in from twenty-four to forty-eight hours, when the seeds are taken out, and sown in the usual manner; of course, placed in a suitable temperature as the seeds may require. Another way is to take a woollen cloth, and wet it with oxalic acid, on which the seeds are placed and folded up, and put into a suitably heated structure. By this method, seeds have been found to vegetate equally as well as in the bottle. Essential care must be taken to remove the seeds out of the acid as soon as vegetation is observable. M. Otto found, that by this means, seeds that were from twenty to forty years old grew; while the same kinds, sown in the usual manner, did not grow at all.—Some of the old gardeners have an idea that old cucumber and melon seeds produce plants more fruitful than those from new seeds. The most luxuriant plant is produced from the good, sound, and plump new seed.—The last priced catalogue published by Groom, lately deceased near London, contained three varieties of the tulip, at the enormous figure of five hundred dollars each; they were all of his own raising; there is also one at two hundred and fifty dollars, twelve at a hundred dollars, and four at fifty dollars each. Mr. G. succeeded best by mixing large quantities of coarse river sand in his soil. His whole stock has been dispersed since his death.

The Cranberry, and its Culture, is the title of another manual, from C. M. Saxton & Co., New York, written by B. Eastwood, very well illustrated, and full of information. The culture of this fruit is of great importance; it will pay well in soils suitable for little else. A large demand, even for export, has grown up, and, from the easy transportation of the fruit, it is very profitable. The experience detailed in this work cannot be dispensed with by those intending to plant the cranberry. From ten to fifteen dollars a barrel is the price now obtained in the Boston market; a pint has been sold in London for nearly a dollar; all that can be raised will find a market. In the appendix, there is an estimate of the profit of the culture, by Mr. A. Flint, as follows: In 1853, he sold fifty barrels, at thirteen dollars the barrel, making *six hundred and fifty dollars* as the product of *two acres* of what was quite recently an almost worthless bog meadow!

The American Pomological Society will hold its next meeting at Rochester, on the 24th of September. The regular notice from the President was unaccountably omitted last month.

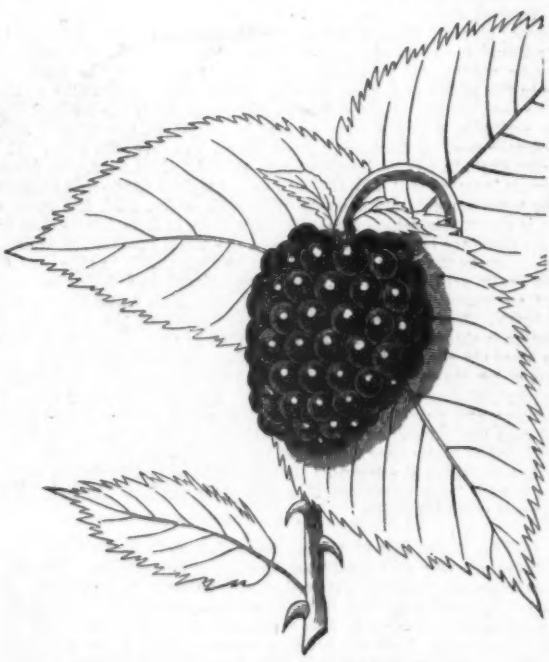
A. Loomis, of the Byron Nurseries, Genesee Co., N. Y., has issued a very comprehensive catalogue of fruit, and ornamental trees and shrubs, roses, vines, &c. We hope his neighbors, and persons within reach, will consult the catalogue and plant the trees.

The interest attached to the pursuits of floriculture is well expressed by Teschemacher, who says: "Examples are exceedingly rare of men once engaged in it ever giving it up but with their latest breath—

What were life without a rose?"

Moving Trees.—In removing trees early in the past month, it was interesting to remark that nurserymen who had underdrained their grounds, were enabled to commence their deliveries at least ten days, or two weeks, before their neighbors who had neglected this highly important precaution. A commentary, this, on draining, which speaks volumes. It is stated that land worth but a dollar and a half an acre, in England, has been converted to the value of fifty dollars, by drainage alone.

The Lawton Blackberry.—The importance attached to the cultivation of the Lawton Blackberry, has induced us to have an engraving made of the vine and fruit. We give, also, its mode of cultivation, from Mr. Pardee's book on the *Strawberry, &c.*, just published by C. M. Saxton & Co., of New York :—



Cultivation. — The Blackberry rejoices in a moist, loamy soil, but will grow well in higher exposures, and is rather benefited by a little shade and a cool northern aspect. When thus favored, it will prolong its period of bearing from four to six weeks. Usual good garden soil is favorable for the Blackberry, and it will bear being made pretty rich with manures after the first year, and especially with muck or woods'-mould. It should be transplanted as early in the spring as possible, or in the fall, and especial care should be taken of its fibrous roots, and its whole general culture, the first year, and then it will grow, produce fruit, and propagate itself rapidly.

The canes which come up one season will bear fruit the next, and then die in the autumn, and the dead branches must be carefully removed early every spring, in order to make room for the new ones to take their place, and this beautiful process of reproduction thus goes on; so that a single plant, set out in a good, free soil, will send up two, three, or four plants, and those will increase to a score or more the following season, if carefully pruned and kept clean.

The ends of the canes should be shortened about one-quarter early in the spring, when the old decayed ones are removed, and, if the laterals are too long, clip them also. They usually require no support.

Transplanting.—Particular care, we think, is needed in transplanting the Blackberry. It should not be attempted late in the spring, otherwise a great share of the plants will hardly survive the process. Mulching and watering are often useful, and even necessary, when transplanting.

It is well to set the plants four or five feet apart in rows that are eight to ten feet distant, and they will soon cover the ground, and thus 500 plants will set an acre. Some large

growers in the vicinity of New York, have readily contracted their entire crop for the season at 25 cents to 37½ cents per quart. We have given a large space to this variety, not only because it is new, but because we believe it to be worthy of extensive cultivation by the public, both as amateurs and for the market.

Portraits of the Fastolf and Red Antwerp Raspberries, copied from Mr. Pardee's book, are also given below:—

The Fastolf.

Red Antwerp.

The mode of cultivating these valuable varieties has been given so lately in the *Horticulturist* (see page 14 of this volume), that it is unnecessary to repeat them here.

Agricultural. Foreign Seeds.—An interesting letter from the Patent Office to the Congressional Committee on Agriculture, briefly reviewing what has been done in the way of naturalizing foreign herbs and plants in the United States, has appeared. Everybody knows that some years ago, on the representation of the Patent Office, instructions were sent to our representatives abroad, and to the naval officers on foreign stations, to collect seeds and bulbs and cuttings of foreign growth, and to send them home for trial here. The plan has been in operation but a short while, and the appropriations made for it have been small, but the results, as given in Mr. Brown's report, are already very gratifying. Most farmers are acquainted with the "Mediterranean wheat," which ripens, in great abundance, earlier than our common varieties; a few years ago it was unknown here. From France we have obtained two Chinese plants, which the enterprise of French agriculturists domiciliated some time since on French soil—the "Chinese yam"—a very fair substitute for the potato, and the "Chinese sugar-cane," one acre of which produces twenty-five tons of fodder, of the most nutritious and excellent kind. Another good forage crop has been obtained from the "chufa," a plant of Spanish origin; and yet a third from the *Moha de Hongrie*, from France. Cuttings of foreign plum-trees have been imported in large quantities, and engrafted upon the common plum with such success, that we may shortly expect to produce all our own dried prunes. It is now proposed to import more largely than heretofore, in fact, to obtain from abroad every plant, herb or tree which has been cultivated successfully anywhere. For this, larger appropriations than usual will be necessary. That Congress ought to grant them, there can be no question.—*Nat. Intelligencer.*

THE NEW YORK HORTICULTURAL REVIEW.—A brief paragraph from the publisher of the above work, last month, announced that it had been merged in the *Horticulturist*. After six months of unbounded advertising, and efforts of various kinds, that, if employed in another occupation would have led to happy results, it transferred to this periodical exactly one hundred and seventy-five subscribers, and many of those were obtained by sending agents abroad, and at an expense of from four to fifteen dollars each! The proprietor printed a large edition, which was distributed monthly to postmasters, and agents of periodical works; at least 500 copies were sent as exchanges with newspapers, &c. The result has been the loss of some thousands of dollars, time thrown away, and talents misapplied.

We give these facts as an evidence that another Horticultural Journal is not required at the present time; it is not the first, second, or third attempt, that has eminently failed, both at the East and West, and it probably will satisfy any person desirous of embarking in such a dangerous experiment, that it would be better to seek an occupation more likely to be rewarded for anxiety, trouble, and expense. The American people are deeply interested in agriculture, and works on that subject have multiplied of late with remarkable rapidity; many are entirely successful, and are disseminating valuable information; but many of these are obliged to combine the character of a news journal, and to make the farming portion of their columns very brief. All of them more or less embrace the topics of horticulture; they appear, many at least, weekly, and are placed at very low prices; the farmer's fireside welcomes their arrival, because they diffuse a general knowledge of what is passing in the world, and to members of the circle not interested in agriculture, convey something for each.

With a horticultural journal it is different. To make it of any real value, and offer it at a cheap rate, it must confine itself to its legitimate topics; the news of the month would load it down, so as utterly to destroy the opportunity of discussing its subjects at any length. The number of persons really sufficiently interested in horticulture to pay for such a journal, is comparatively small. We have the whole American market, so to speak, and kindly interested readers, of many years' standing, using great personal exertions to extend and keep up our circulation, from an impression that the work is useful. Then, again, the contributors are the best and most able writers on horticulture in the Union; they have been attracted to these pages by its original merits, have continued to read it, and to write in its columns, till it has become more and more, by general consent, the medium of communication between the active and useful men of the country, in all the States and Territories. This character it shall be our aim to support.

With all this, the gardening interest and the horticultural taste, and with large advertising patronage, it has never reached a circulation of more than a few thousand, and, till 1854, could not be considered a paying journal. The additional patronage, which was brought to it by the care and talents of Mr. Barry, elevated its circulation from twenty-four hundred to about four thousand; it has now, thus early in the year, many hundreds of subscribers more than at the *close* of 1855, thus showing that there is a gradual increase of demand; and there is every reason to believe that, in December, 1856, it will considerably exceed five thousand; this is after ten years of untiring devotion to the interests of its readers, and the attention of careful and enterprising publishers.

We therefore could recommend, with a clear conscience, none to attempt very soon the establishment of a horticultural journal, unless with plenty of money, which they are willing to part with.

CLIMATOLOGY.—A valued correspondent, in a previous page, has given our readers a very interesting paper on Climate, a subject of the greatest importance to all of us. We would caution the farmer, no less than the horticulturist, not to estimate the value of his climate entirely by the quantity of rain that falls in a given district. Water, as the universal solvent of the nutritive matters, is indispensable, but much unnecessary trouble has been taken to calculate the quantity of water, as rain or snow, that falls upon the surface of the earth. The free water of the soil, many scientific men think, is seldom beneficial to plants, and only bog plants, or those which grow in water, will exist in it. In those portions of the earth which produce the most plants, water is only occasionally present (as after rain, &c.) as a coherent fluid; the normal condition of water in the soil is as hygroscopic water, or absorbed vapor. The complete independence in vegetation of the atmospheric precipitation of rain in a liquid form, is seen in the vegetation of the oasis, and of the cloudless coasts of Chili and Peru. The sand of Sahara produces no vegetation, not because no rain falls upon it, but because it has not the power of condensing aqueous vapor. Of the water that falls as rain, very little is used directly by the plant; the greatest part runs off, or is evaporated into the atmosphere, whilst another part sinks into the earth and feeds the springs. There are but few observa-

tions on the quantity of water needed by plants, but those that have made any pretensions to accuracy show that rain, after making allowances for that which flows away and is evaporated, does not supply more than a tenth part of what is necessary. It is unaccountable and inexcusable, that not a single botanist, since the time of Hales, should have taken up and carried on his important experiments on this subject.

The quantity of rain which falls in a given region, is not a measure of its fruitfulness; but the quantity of moisture, the absolute and relative quantity of vapor, which yearly, and especially during those months which are most important for vegetation, is contained in the atmosphere.

But water is not the only, nor the most important portion of the food of plants. They require carbonic acid gas, and the volatile salts of ammonia, which must be derived from the atmosphere; they are absorbed—the carbonic acid partly, and the ammoniacal compounds probably entirely, by means of the roots; clay and soil must be present as media to convey them to the plant. Though, in England, but half the quantity of rain falls that we find in a large portion of our country, the moisture of the air, and, consequently, with it the proper food, is more regularly and constantly supplied than in our arid regions. Coniferous, and other trees, flourish here better in situations where there is found to exist a succession of damp nights and mornings, as in regions where the dew is not dispersed till long after the rising of the sun.

Mr. J. J. Smith.—Dear Sir: I think you would confer a favor on horticultural societies, if you would publish a list of their corresponding secretaries, and thus enable them to exchange publications. Yours, very truly, Charles Gifford, *Milwaukee.*

It would doubtless prove useful to do so, and if the various horticultural secretaries will *at once* forward their names and residences, we shall with pleasure comply with the suggestion. Such a list, too, will, in fact, form a catalogue of existing horticultural societies in the Union and Canada. It shall appear in June or July, if all will forward the information.

Strawberries.—There has been a rather warm discussion, in the Cincinnati Horticultural Society, as to the merits of McAvoy's Superior, and Hovey's Seedling Strawberries, with the majority and minority reports of a committee appointed on the subject. The discussion and reports occupy nearly two columns of small print in the *Daily Inquirer*. The following appears to be the conclusion arrived at by the Society:—

Mr. Orange then moved that the whole subject be laid on the table.

At the request of Mr. Hatch, the motion made by Mr. Orange was withdrawn, when Mr. Hatch offered the following resolution:—

"*Resolved*, That the opinion heretofore entertained by this Society, as to the excellence of the strawberry known as *McAvoy's Superior*, remains unchanged, it having been fully tested as a garden fruit, and, in this vicinity, proved to be delicious and hardy. As a fruit for general field culture, and for market, the high price of plants has heretofore prevented its being tested."

The following amendment was then offered by Mr. Greene:—

"Hovey's Seedling, for field culture and market purposes, holding its position as superior to all others tested."

The question being then taken on the amendment offered by Mr. Greene, it was carried by the casting vote of the President. The resolution then, as amended, was carried by a large vote.

The Society then ordered the reports of the majority and the minority on the Strawberry question to be printed with the proceedings.

Fruit.—A cargo of fruit *from Japan*, is advertised in the California papers; of what descriptions, not stated. In New York, watermelons from Nicaragua have been pronounced "excellent," in March last. Some of the California papers are printed on Chinese paper; significant facts, these.

Gutta Percha.—The curious article on Gutta Percha, which we have compiled for this number, will find many readers. The discoverer of this inspissated sap of an Indian tree, was Dr. William Montgomerie, of the Indian medical service, and this only in 1845; he first observed that the handles of the knives of natives of Borneo were peculiar, and, on examination, saw of what they were composed. Without this useful article, discovered just in time, the sea telegraph could not be employed. The son of the discoverer has lately been placed on the list of military promotions for this discovery of the father.

Illinois Cattle.—Our enthusiastic friend, Bross, of the Chicago *Press*, never loses an opportunity of speaking well of his own State, of which he is one of the most useful citizens. The following information, abridged from his paper, is worthy of record:—

"Chicago or Illinois beef will soon take as undisputed rank among the materials of good living as have the hams of Westphalia, Stilton cheese, Goshen butter, New York oysters, Lake Superior white fish, Connecticut River shad, or the wild celery-fed canvas-back ducks of the Delaware. What the savory mast of the Whestphalian forest does for the flesh of the pig that feeds on it, how the white clover and sweet scented vernal grass of the rich pastures of Orange County influence the products of the dairy, so, and in some such manner, the prairies of Illinois impart fat and flavor to the flesh of the cattle raised on them.

We have been led to these observations by the arrival in Chicago, last week, of thirty noble bullocks, a part of a lot of one hundred, *en route* for New York city.

These cattle belong to Mr. B. F. Harris, an extensive stock feeder, who resides near the town of Urbana, and the Chicago branch of the Illinois Central Railroad. They are unquestionably the heaviest and fattest drove of one hundred bullocks in the world. They were weighed at Mr. Harris's farm.

The aggregate gross weight of the 100 was 118 1,200-2,000th tons, or 2,373 pounds each. Twenty-five of the best and fattest weighed on an average 2,662 pounds each. "The Baby" of twenty-five, kicked the beam at 5,876 pounds. Three days were required and needed to drive them to the railroad station, fourteen miles. The average age of the 100 is less than five years. Not one has ever been housed a day in his life; a half dozen pairs only have been yoked, and a less number worked. They have been pastured and herded on the prairies in the summer, and, in the winter, fed on corn in the shock, and sound timothy, and yarded along the skirts of the Sangamon timber."

This appears to us more sensible "talk" than that of the late French papers about the "baby" of the Empress. What would the Illinois prairie farmers say to having a boy *born* to drive them about as Mr. Harris drives his cattle?

The Hunt Botanical Garden is, for the present, not to be commenced. The chief donor wished to have an observatory, to cost some $70,000, to which the committee objected, and, in consequence, he has withdrawn his support. The energetic determination of W. S. Degraw, Esq., and his other associates will, however, carry it through, only in another position.

The Massachusetts Horticultural Society's Report of Committees, for 1855, with the schedule of prizes for 1856, makes a pamphlet of 50 pages, and appears to be every way worthy of the distinguished reputation of the Society. We have marked many passages for reference, but have so devoted our space as to have little room for extracts the present month. In many respects this society is a model which might well be copied.

The Gooseberry on the Currant.—Sir: A former correspondent of the *Horticulturist*, August, 1849, made some sensation by assuring us that he had succeeded in grafting the gooseberry on the yellow flowering currant, on stocks five feet high, with a prodigious result. It would be well to inform us whether the grafts continue to do well, and the fruit is still free from mildew? I have found that keeping the roots of gooseberry bushes cool with mulching, and to plant them in cool situations, is useful, but I attribute my freedom from mildew, the past few years, to sprinkling a handful of salt around each bush in winter, or early spring. —M. C.

[We have the same results from the use of salt.—Ed.]

Dr. John Lindley's portrait, which we insert to-day, conveys almost a speaking likeness of the botanist, about whom it is best to "gossip" but little before he completes his career. To the article, which we copy from the *Cottage Gardener*, was appended considerable abuse for certain doings of his in connection with the London Horticultural Society; this is omitted, but we may add that the doctor has little affection for America, and considers, from positive ignorance regarding it, its horticulture in a lamentable condition.* We learn, incidentally, too, that he does not take the *Horticulturist*—quite unpardonable in so great a man!

* Dr. Lindley's great merits as a botanist are somewhat obscured in the eye of an American, by his inclination for a satirical fling at this country—a national sin, belonging to a large class, among whom we are sorry to include the editor of the London Athenæum; the fact undoubtedly is, that America is doing more than any other country for pomology, and Dr. Lindley, it might be expected, would be the first to acknowledge it; for his own credit, this is to be regretted.

Transplanters.—Dibbers and trowels are well-known instruments for the removal of plants of various kinds. In using the pointed or semicircular trowel, the young plants may be taken up with a considerable ball of earth attached to the roots, while they suffer no injury by the process. A more perfect mode of transplanting by the use of the trowel, is that by taking two of these, one in each hand, thrusting them down on opposite sides of the plant, at the same time drawing the handles slightly outwards; the faces of the trowels are thus made to collapse so much as to press the soil about the roots, and enable the operator to take the plant, with ball entire, from the seed-bed to its destination, and to place it in its new abode without the least check to its growth. We have figured several transplanters, which have been employed for such plants as the brassicæ, &c. Fig. 1 is called Saul's transplanter. It may be thus described: The blades are opened by pressing the lever, *a*, towards the handle, when they open outwards, and in this state are thrust into the ground, having the plant within them; a counter-pressure causes them to collapse and embrace the ball firmly, and, in this state, the instrument being drawn upwards, brings with it the plant and ball entire; it is then taken to its new place, when the handle is again pressed inwards, and the blades open and are withdrawn, leaving the ball to be filled around with earth.

Fig. 1. Fig. 2. Fig. 3. Fig. 4.

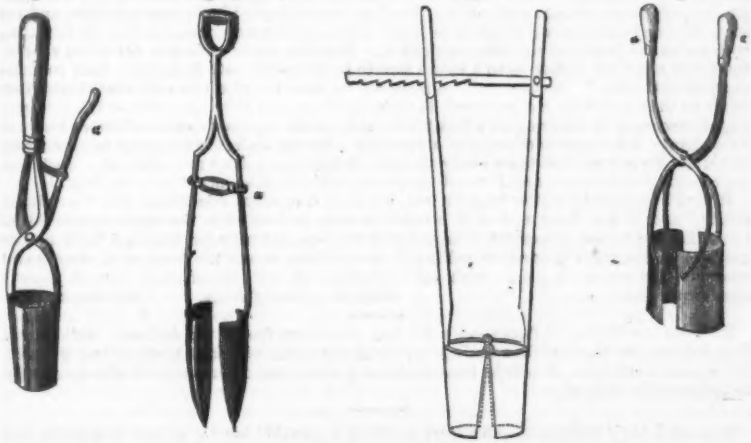


Fig. 2 shows a modification of the above instrument, wherein the blades are opened by moving the slider, *a*, upwards, and when thrust down around the plant, the blades collapse by pressing the slider downwards. The operation, afterwards, is the same as in Fig. 1.

Upon the same principle, but with much more mechanical ingenuity, is McGlashan's transplanter, Fig. 3, constructed, which is admirably adapted to such operations. These three collapse upon the ball firmly—and not only that, by their construction they embrace it tighter at the bottom than at top, rendering it next to impossible that the ball should be extracted, and, also, that it cannot slip out afterwards until relieved by the removal of the pressure upon it. All these transplanters are merely modifications of Fig. 4, long used, in France, for similar purposes. Its principle will be readily seen by the figure. The handles, *a a*, are pulled outwards when the blades are thrust into the ground. They are pressed inwards when the operation of lifting upwards is desired.

Drainage.—We have, from Albany, N. Y., a pamphlet setting forth the advantages and profits of thorough drainage. It emanates from the manufacturers of tile, C. and W. McCammon, and will convince the most incredulous.

W. L. Ferris, of Throg's Neck, Westchester Co., N. Y., has sent us a catalogue of his extensive nurseries, in which is enumerated a large collection of old and new descriptions of desirable trees, shrubs, and greenhouse plants.

NEW BRIGHTON, STATEN ISLAND, April 5, 1856.

J. JAY SMITH, ESQ.—DEAR SIR: I do not wish to trespass upon your space with anything like a party controversy, but, if you will favor me with a short explanation to Mr. Hepp's strictures in your April number, it will not be repeated. I wished to keep you apprised of what was going on amongst our horticultural societies, and accordingly sent on a report of the exhibition at Brooklyn, in September. Particular attention was directed to the plans (which were publicly exhibited) for the intended botanical gardens. As regards Mr. Hepp, he had previously made me acquainted with his ideas orally, so that it did not require more than an hour's close examination to judge of its merits. It so happens, that I have had a good deal of experience with the pencil, and also in carrying such designs into execution on the ground; I was thus the better prepared to pass an opinion, and as this was a portion of the exhibition, there was no harm in mentioning it in the general report. If such things are not to be criticized, the parties presenting them should place a card upon them to that effect, or else be prepared for the result. It appears, however, that Mr. Hepp takes exception only to my inferior intellect, or, rather, as he states it, "a correct opinion of it calls for mental acquirements different from those available to the author of that article." His knowledge of my mental acquirements must surely have been judged of at a "glance;" for he has only seen me some half dozen times, and a part of those interviews were, on his own part, for the purpose of getting information. I had no ill-feeling to him in that criticism, and am sorry that he could not have replied to it in a more gentlemanly manner than by becoming both judge and jury over my humble abilities. Whether he be correct or not in his verdict, "requires more self-conceit than I would like to be possessed with to assume such unquestionable authority." No one could be more willing than I to give him credit for his abilities, so far as they go, but he has yet much to learn before he can fully comprehend the bold and majestic scenery of America, or adapt his designs to the expansive and utilitarian views of its society. *That requires the mind of a Downing.* We have already too many small notions, and when we see more of them likely to occur, it becomes a duty to speak out. Such was the case in this instance, and I would again say, with all deference, "take the hint."

It would be an easy matter to point out, before a competent committee, the "misplaced utility," and if Mr. Hepp and that committee were to look over the many credentials of merit that are in my possession, from reliable sources, not only for practical horticulture, but also in his more immediate calling, it is probable, to say the least of it, they would conclude that we are on a par; with the advantage, on my side, of some "fifteen years'" more experience. Most respectfully yours, WM. CHORLTON.

MICHAUX AND NUTTALL'S SYLVA.—By the late disastrous fire at the Artisans' Building, in Philadelphia, the whole of the remainder of the sheets of the edition of Michaux and Nuttall's *Sylva* were destroyed. It will be immediately reprinted, but orders on hand will necessarily be temporarily delayed.

PARSONS & CO.'S NURSERIES.—We have received a valuable bundle of new evergreen, and other trees and plants, from the reliable nurseries of Parsons & Co., at Flushing, Long Island, for experimental growth. Among them we notice Pinus Benthamiana, a new tree, of rapid growth; P. pumilio; Cunninghamia sinensis, somewhat resembling the Araucaria, but more hardy; Abies menzesii; Juniperus ericoides; Abies morinda and Douglasii, &c. &c., for which they will accept our thanks.

LAWTON BLACKBERRY.—Thaddeus Davids, Esq., and Mr. Lawton, of New York, have forwarded us a large allowance of the true Blackberry. (*See* Mr. Lawton's Advertisement.)

NORTHERN SPY APPLE.—A box of this invaluable Apple of the Spitzenburgh family, received by express on the 15th of April, in the finest order, has placed us under obligations to Mr. James H. Watts, of Rochester, N. Y., who has a special affection for this fruit, and evidently cultivates it *con amore*. It is a fine keeper, even to June; it is now as firm as when taken from the tree, which is a great bearer, the branches weighed down to the ground with the fruit. These are the best specimens we have ever seen, and they are pronounced *very superior*. It originated near Rochester, where it seems to luxuriate. Mr. Watts may well be gratified with the results of his horticulture.

SEEDLING POTATOES.—We have received, from Daniel A. Buckley, of Williamstown, Mass., some of his Stone Hill and Chili seedling potatoes, of the value of which, for this climate, a report will in due time be made. The Stone Hills are noble fellows.

MR. EDITOR: I was delighted to see you differed a little from the resolutions of the Society, to sell Penn Squares! It reminds me of some would-be wise *savans* of the French Academy, priding themselves on having ascertained the exact nature of the crab; they submitted their definition—that it was a red fish, which walked backwards—to Cuvier, who congratulated them on its correctness, in all but three points—"that it was not a fish, nor was it red, nor did it walk backwards!" It might be easy to demonstrate that the squares, all things considered, are not diminutive, that little boys are not in danger within the railings, and that the Society, generally, would not "rejoice" to see their lungs destroyed.

A FELLOW MEMBER.

THE WEATHER ON STATEN ISLAND.—We have at last got a break-up of the late severe and protracted winter. To-day (April 5th), for the first time, we have been enabled to use the spade. Euonymus japonica, which has stood, without injury, for the last seven years, has become a never-green down to the snow line; Deodar cedar, almost as shabby looking, but likely to recover; Tree box has braved it finely, and is none the worse in appearance; Irish yew, with a few cedar branches to cover, is in fine condition. The flowers of Paulownia all killed. Peaches, to present appearance, only injured where the wood was *weakly*, or *not thoroughly ripened*. Exotic grapes, planted outside, severely injured, and some late kinds I saw the other day, in a cold grapery, were split right up. These, however, were neglected last summer, and the wood not well ripened. Some cherries are likewise split. Pears not injured where the roots have been mulched. If we can make up our minds to cease croaking, and push along, now we have good weather, it is likely that things will turn up better than expectation.

W. C.

JOHN A. and CHARLES KENNICOTT, have forwarded their "Descriptive catalogue of fruit and ornamental shrubs, cultivated at the Grove Nursery, West Northfield, Cook County, Illinois." It bears marks of their intelligence and zeal; one of their remarks we extract: "We would impress upon every tree planter the value and importance of taking some good horticultural journal, and of providing themselves with a few of the many excellent standard works on horticultural subjects." This is good advice; the prejudice against book-gardening and farming has long since been discarded, for the very good and simple reason that those who read and study surpass their more ignorant neighbors, get rich faster, but, better still, have more intelligent minds, and enjoy life a thousand times more; the amenities of life cannot be fully appreciated by the unlettered. We have no doubt, from the names attached to this catalogue, there is an intelligent neighborhood around the Kennicott Grove Nurseries.

SENSITIVE AND MOVING PLANTS.—In our notes of a Day at Kew, we omitted to notice a singular plant, of which a few specimens only were seen in this country some years ago; it is the *Desmodium gyrans*, usually called the Moving Plant, and, in Bengal, the Telegraph Plant. The movement is voluntary, not influenced by touch, only requiring a calm, warm atmosphere; it is therefore kept under a glass case. The leaves consist of three leaflets, one large, terminal one, and two small, lateral ones. The latter alone are endowed with this wonderful property. There are some or other of them always in motion, by jerks, and in circles, or gyrations, in one direction, so as to return to the same point. Well might Collinson and Bartram have given this their significative name—the *Tipitiwichet Sensitive*.

The *Mimosa pudica* differs from the *Mimosa sensitiva*, or sensitive plant, and is more remarkable. The best way to exhibit its strongly sensitive properties of the leaves, is to cut off, suddenly and cautiously, the tip of one of the terminal leaflets, when all the other leaflets on that stalk will close, *a pair at a time*, from above downwards; thence the impulse is continued to the adjoining stalks and to the leaflets, from below upwards; and then the whole leaf will fall.

TREES FOR THE SEA-COAST.—The following are recommended, in the *Gardeners' Chronicle*, as suitable trees to plant near the sea-coast: Yew, Sycamore, Holly, Evergreen and Lucombe Oak, Spanish Chestnut, English and Turkey Oak, Elm, White Poplar; and, for shrubs, Aucuba, Tamarisk, Pontic Azalea, Hydrangea, Arbutus, Sweet Bay, the China Roses, Cotoneaster, &c.

STRAWBERRY SIR HARRY.—The French catalogue of plants and seeds of Bossin, of Paris, just received, says of the new strawberry *Sir Harry:* "This variety, which we place in our list for the first time, is, without doubt, the most beautiful and the best of all the known strawberries." It has not yet reached America that we are aware of, but doubtless will be here for the fall planting. Bossin's price is three francs each plant.

ANSWERS TO CORRESPONDENTS.—Greenhouses have been much the subject of former volumes of the *Horticulturist*. In vol. 5, pages 110 and 184, as well as elsewhere, our correspondent will find much information. It is a subject of great interest, and particularly the point he alludes to, that of cheap structures for the many. Eight and ten dollars a running foot, is about the lowest price for anything ornamental, but, for three dollars a foot, a house that will answer to protect and grow flowers, *may* be built. The topic shall be discussed hereafter. At present, we are overwhelmed with matter waiting admission.

(A. G. H., Wisconsin,) will find a description of a "pit" for keeping and blooming winter flowers in our last number. A more simple one also answers well for keeping plants; sink a pit, of any size you want, below the ground entirely, and line it with brick, stone, or planks; treat it just as you do a hotbed, omitting the manure at bottom. Such is the one you inquire about. Nothing could be more simple; but be sure it has a dry bottom.

(WM. H. READ, Canada West.) John Fiske Allen, of Salem, Mass., authority on the subject, says: "See Hovey's *Magazine* for Jan. 1855, page 44, for his article on Hybridizing the Grape; turn also to his book on the Grape, pages 149, 150, 151, 3d edition, and you will find a plan to save the pollen for impregnation—the only practical one, I think; the pollen, if kept in tin or glass, from the air, and in a dry place, will keep good a year." Mr. Allen is about to introduce to the public some of the results of his praiseworthy efforts, but sufficient plants have not yet been grown to offer them the present spring.

(HENRY SHELDON.) The Golden Hamburgh Grape is quite new in England, and is sold at a high price. It has not been received in this country yet.

(A. J. CAYWOOD, Modena.) We have no connection, and never had, with any commercial nursery.

(C.) Consult "Parsons on the Rose," and use good manure, plenty of sun, and keep the roots in a soil that will not retain water too long.

(J. D. INGERSOLL, Ilion.) We are not aware of any gardener who possesses the seedling grapes you name.

(J. POWELL, Dayton, Ohio.) Your kind notice came too late, and is now out of season.

A CONSTANT READER AND SUBSCRIBER, BALTIMORE, will find the information he wants in the *Encyclopædias*.

CARLISLE, KY.—DEAR SIR: I received your *Horticulturist*, and I am so highly pleased with its contents, beauty, and value, that I feel disposed to exert my influence in its favor. This locality is proverbially the most fertile and wealthy in Kentucky, and particularly adapted to the cultivation of fruit. No place can be found where the apple, grape, and peach, grow more luxuriantly than in this State, or where the fruit is produced more perfect. We frequently escape the late spring frosts; when further north, they are very destructive to the early blooming kinds. The peach here attains its largest size and highest flavor, but, owing to its vigorous growth, the tree is not long lived. With all the natural advantages possessed by the owners of the soil for the profitable culture of fruit, comparatively little attention is paid to it; they are suffering from neglect; in this they could greatly add to their yearly profits, to themselves, families, and neighbors. Our farmers are intelligent and enterprising, and ready to embark in anything that will pay. It must be that they are uninformed upon the subject of the profits and importance of fruit culture, and the superior excellence of the new articles in comparison with the old familiar kinds. It is the want of information on the subject, I am assured, from the following circumstance: Last fall, I mentioned to a few friends that I had some trees sent to me for sale. I soon had orders amounting to over 400, and I have orders for spring for more than 1,000, and, I think, the circulation of your interesting and valuable work will much increase this year. WILLIAM DUNN.

WASTE STEAM.—MR. EDITOR: I was very glad to see your notice, in a late number, respecting waste steam. How many steam-engines we have in Philadelphia (some estimate them as high as six hundred, within the limits of the pavements), which are continually throwing away, into the air, an amount of heat and moisture sufficient to supply luxuries to the whole population. By depositing this heat in beds of stone, &c., for night warmth, every owner of a steam engine might grow his own grapes, pine-apples, &c. Even suppose he had his grapery in the garret of his factory! A few windows in the roof, easily constructed, would give sun and light, and the steam, under control of a valve, could be injected with perfect ease, without costing an additional copper. It might, too, be led by small, inexpensive pipes, to considerable distances, instead of being jetted out into the blue vault of the

sky. Some wiseacre has suggested, that by going to the coal mines with plenty of sashes, we could grow grapes, and other forced fruits, with comparatively no expense of fuel. Why not grow them where they are to be sold, close to a market, by using this waste matter, within the reach of everybody who has steam-works near him? The suggestion is most important. I am now treating for the waste steam of a neighbor, to be brought under ground 800 feet.

PHILADELPHUS.

THE DIOSCOREA.—The following is an extract of a letter to the Committee of Patents from W. D. Brackenridge, late public gardener in Washington, and formerly of the U. S. Exploring Expedition, residing at present at Govanstown, near Baltimore, Maryland: "The two small tubers of *Dioscorea batatas* which you gave me last spring, I started in a hotbed, and planted them out about the middle of May, in a deep, yellow, loamy soil. About the middle of November I dug the roots, and found two of them over two feet in length, and four inches in circumference. Next season I intend to plant these roots and the small tubers propagated from the leaves, and allow them to remain in the ground during next winter, as I think, in a second year, they will attain a large size, after protecting them from frost by covering with straw or leaves." So says the *Country Gentleman*. Mr. H. A. Dreer, of this city, has received a supply of this plant from France, of his own importation.

GRAFTING.—Dr. Lindley lately delivered a lecture on grafting before the Horticultural Society of London; the following are the conclusions arrived at: 1. A scion will always form a perfect and permanent union with its stock, if both are from the same individual. 2. A scion will generally form a perfect and permanent union with its stock, if one is a mere variety of the other. 3. A durable, but not permanent union, may be effected when one species of a genus is worked on another species. 4. No union, either durable or permanent, can be expected when stock and scion are widely different. 5. Bad workmanship will render any kind of grafting perishable. Grafted plants, then, are not necessarily worse than seedlings.

AUCTIONS.—*Wife.* "Well, now, as sure as I'm alive, husband, you've been to auction and brought a pack of cinnamon roses home, and I have had a man digging half a day to get the pests out of my garden. Do throw them right into the street."—*Husband.* "Why here's the list, *Viburnum opulus*, and the *Symphora racemosa*, and the *Philadelphus coronarius*, and *Syringa vulgaris*, and I'm sure—"—*Wife.* "Pshaw! You've paid away your money for a pretty parcel of Latin names. I don't care what you call them, but they are nothing but our old-fashioned syringas and lilacs, and snowballs, and waxberries." Alas, out of thirty dollars' worth, the poor wife got a few new plants that she might have purchased of an honest florist for two dollars. We are now in the vernal season of auctions.

THE WEATHER IN ENGLAND.—We have had the coldest winter, in England, during 1855, since 1784, the years 1795 and 1814 not excepted, and great injury has been done.

W. S. ASTON, *near Liverpool.*

Horticultural Societies.

PENNSYLVANIA HORTICULTURAL SOCIETY.—The stated meeting of this Society was held at Concert Hall, on Tuesday evening, March 18, 1856, Gen. Patterson, President, in the chair. Premiums were awarded by the Committee on Plants and Flowers.

Azalea, Specimen Plant—for the best, and for the second best, to John Pollock, gr. to James Dundas. *Azaleas*—for the best six to Thos. Robertson, gr. to B. A. Fahnestock; for the second best to Robert Buist. *Collection of twelve Plants*—for the best to Thos. Robertson; for the second best to Chas. Sutherland, gr. to John Anspach. *Collection of six Plants*—for the best to J. J. Habermehl, gr. to John Lambert. *Specimen Plant*—for the best, the *Chorozema varium*, to Isaac Collins, gr. to Gen. Patterson; for the second best to John Pollock. *New Plants*—two dollars to Robert Buist, two dollars to Mark Hill, and one dollar each to John Pollock and Thos. Robertson. *Table Design*—for the best to B. Higgins, gr. to D. R. King. *Basket*—for the best to J. J. Habermehl, and for the second best to B. Higgins. *Bouquets*—for the best pair to J. J. Habermehl, and for the second best to B. Higgins.

Special Premiums.—Five dollars for a fine display of Hyacinths, in vases, to Peter Raabe; four dollars to John Pollock, for a collection of a dozen of Roses; five dollars to Robert Buist, for a fine seedling Camellia; two dollars, for a collection of twelve Plants, to Mark Hill; two dollars, for a fine collection of Cinerarias, to James Thomas, gr. to J. D. Whetham; one dollar, for a collection of stocks, to the same; and one dollar, for a collection of Cinerarias, to J. J. Habermehl.

By the Committee on Fruits. *Pears*—for the best twelve specimens, the Easter Beurré, to John Chambers,

near Mount Holly, N. J. They notice a jar of extraordinarily large Strawberries, preserved in alcohol, shown by Saml. Wagner.

By the Committee on Vegetables. *Mushrooms*—for the best to B. Higgins. *Display*—for the second best, by an amateur gardener; to Mark Hill, gr. to M. W. Baldwin. *Special Premiums*—two dollars to Chas. Sutherland, for a neat display of Cucumbers, Tomatoes, and Beans; one dollar, for a brace of fine Cucumbers, to Wm. Bright, gr. to Joseph S. Lovering.

On motion, ordered that a committee of five be appointed to confer with a committee of the City Councils on the subject of laying out and planting the trees in Hunting Park Square.

Five gentlemen were elected resident members.

OBJECTS EXHIBITED NOT BEFORE MENTIONED.—*Plants* by B. A. Fahnestock's gr.: *New* Puya Allenstrinii, Daphne Fortunii, and Camellia, Mrs. Lurman. Collection of twelve—Bletia Tankervillea, Correa speciosa, Acacia undulata, Epacris canescens, Centradenia rosea, Pultnea subumbellata, Camellia Lowei, Fagatella bituminosa, Franciscea confertiflora, Azalea sp. Mahernia odorata, and Chorozema varium and six Azaleas.

By Robert Buist.—*New* Hexacentris mysoriensis, Tetanthera ericoides, Seedling Petunia, and Seedling Camellias. Twelve plants—Correa speciosa ventricosa, Eriostomum pulchellum, Acacia pulchella, Cyclamen persicum, Pelargonium Kingsbury pet, P. flower of the day, Chorozema macrophyllum, Tropæolum Lily Schmidt, P. tricolorum, Centradenia floribunda, Rhapheolepis indica, and Dendrobium Wallichii. Specimen—Mahernia odorata, and six Azaleas.

By John Anspach's gr., collection of twelve—Azalea indica alba, A. phœnecea, A. hybrida, Mahernia odorata, Begonia manicata, B. nitida, Franciscea confutiflora, Centradenia rosea, C. floribunda, Chorozema varium, Bletia Tankervillea, and Conoclinum ianthinum.

From James Dundas's collection.—*New* Petratheca ericoides, Rhododendron jasminodes, Azalea Apollo, A. magnifica, A. extranii, Sacolobium macranthemum; two Orchids—Phalanopsis grandiflora and Oncidium flexuosum. Collection of twelve—Azalea indica alba, Chorozema varium, Kennedya macrophylla, K. racemosa, Begonia Laperousii, B. nitida, B. manicata, Thyrsacanthus rutilans, Gardenia Stanleyana, Deutzia gracilis, and Conoclenium ianthemum. Specimen—Azaleas, A. indica alba and A. Phœnecea elegans. Specimen Plant—Chorozema varium, and a collection of twelve Roses.

From M. W. Baldwin's collection.—*New* Cytisus superba, C. elegans, Churanthera linearis. Twelve—Azalea indica, A. phœnecea, A. alba, A. variegata (Craig's), A. Duke of Wellington, A. Williamsii, A. Hertsii superba, Polygala Dalmasiana, Conoclinum ianthemum, Mahernia odorata, Bletia Sheppardii, Cineraria climax, and Eriostemum nereifolium.

By D. R. King's gr.—Bignonia capreolata, Boronia vimirea, Conoclinum ianthemum, Franciscea eximea, Burchellia capensis, and Petrea volubilis. Specimen—Camellia myrtifolia.

By John Lambert's gr.—Begonia semperflorens, B. sanguinea, Mahernia odorata, Pentas carnea, Hypericum sp. and Pelargonium macrostema, and a display of Cinerarias.

By J. D. Whetham's gr. Specimen—Tropæolum tricolorum, a collection of Cinerarias, and another of stocks.

By Gen. Patterson's gr. Specimen—Chorozema varium and Dendrobium nobilis.

By N. A. Smith.—Two baskets of growing Hyacinths, &c.

Designs, Bouquets, &c.—By D. R. King's gr.—A handsome table design, a basket, and a pair of bouquets.

By J. Lambert's.—A basket, and a pair of bouquets.

By M. W. Baldwin's.—A basket.

Fruit.—By John Chambers. Easter Beurré Pears.

Vegetables.—By M. W. Baldwin's gr. A small display.

By D. R. King's.—Mushrooms.

By J. Anspach's gr.—Cucumbers, Beans, and Tomatoes.

By Jos. S. Lovering's gr.—Cucumbers.

HARTFORD COUNTY (CONN.), HORTICULTURAL SOCIETY.—At the annual meeting of the Hartford Co. Horticultural Society, held on the 12th of April, 1856, the following officers were elected for the ensuing year, viz: *President*—WILLIAM W. TURNER. *Vice-Presidents*—JOHN M. NILES, JOHN S. BUTLER, HENRY W. PERRY, Hartford; HENRY MYGATT, Farmington; CHARLES L. PORTER, East Hartford; NOAH W. STANLEY, New Britain; NORMAN PORTER, Berlin; E. A. HOLCOMB, Granby; SALMON LYMAN, Manchester; S. D. CASE, Canton; H. A. GRANT, Enfield. *Recording Secretary*—DANIEL S. DEWEY, Hartford. *Corresponding Secretary*—THOMAS R. DUTTON, Hartford. *Treasurer*—P. D. STILLMAN. *Auditor*—H. S. BIDWELL. *Standing Committee*—WM. F. TUTTLE, H. W. PERRY, and EDWARD GOODRIDGE.

Calendar of Operations.

MAY.

BY WILLIAM SAUNDERS.

VEGETABLE GARDEN.—As soon as crops appear above ground, the soil should be carefully stirred around them. This is one of the advantages derived from drill culture, and a very important one it is during dry seasons. The deeper the ground is loosened, the better will it support vegetation; the loose ground on the surface acts as a mulching, and prevents the rapid evaporation of the moisture from below. The air is also allowed unimpeded access to the roots, facilitating those electro-chemical changes upon which the growth of plants so much depends. The most useful implement for this operation is the Dutch, or scuffle hoe; in using it, there is no occasion to tread on the loose ground. Heavy summer showers more or less consolidate the surface of all soils; surface stirring should therefore follow immediately after rains, and never allow weeds to gain sufficient headway to suggest the use of the hoe, but let the cleanliness and freedom from weeds be a consequence of repeated surface cultivation.

In planting Lima beans, guard against deep covering; if the ground is prepared as suggested last month, they may be simply pressed under the surface with the hand; there is

sometimes no small difficulty in getting a good start, with this crop, in close soils. The principal sowings of parsnip, long beet, and orange carrot, if not already down, should receive early attention.

Towards the end of the month, sow a few seeds of Walcheren cauliflower, to come in for fall and early winter use.

Flat Dutch cabbage, and curled Savoy seed, should also be sown at once for winter crops.

Celery should be sown for main crops; choose enriched, friable soil, and mulch lightly with manure, and water occasionally in dry weather.

Young asparagus plantations should be mulched between the rows, and an occasional watering with salted water will be beneficial; two ounces of salt to a gallon of water will form a sufficiently strong solution.

Sweet corn, *summer squash*, and *vegetable marrows*, may be planted at intervals of two or three weeks, if a constant supply of tender vegetables is anticipated.

Peas, *tomatoes*, *&c.*, may be hastened to maturity by pinching out the points of the plants, checking growth will induce a tendency to early fruiting.

In transplanting, always puddle the roots in a mortar of soil and water, unless the weather is dull and showery.

Sweet potatoes may be raised to tolerable perfection, even in strong, loamy soil, by throwing the ground into small mounds twelve or fourteen inches high, and inserting the plants on the extreme top of the mound. Plants may be obtained in quantity by placing a few roots in a hotbed, and cut out the young shoots when three or four inches grown; three such plants should be planted in a triangle on each hill.

Hardy Fruit.—In connection with the writing of these calendars, we have had various inquiries in regard to the proper extent of enriching soil for fruit-trees. Trees that were originally planted in rich compost, and have annually been liberally treated with manure, are, after nine years, still growing vigorously, but showing little or no disposition to fruit. This result is quite in accordance with experience. Trees have their periods of youth, maturity, and old age. When young, and growing with vigor, or, if this vigor is upheld with high culture, the wood-producing force is alone excited; and if, in addition to this, they are annually curtailed of the strong shoots by pruning, in winter, it further increases the preponderance of the roots over the branches. There are various expedients practically resorted to with the view of checking wood growth. Grafting on a slow growing stock, which will naturally afford a less supply of sap than the graft would otherwise take up; digging round the roots, and cutting through the strongest of them; ringing, or cutting out a small piece of bark round the stem; tying the branches to a horizontal, or even a pendent position, are means which have long ago been practised to attain this object. The true method of deriving benefit from manuring fruit trees was not, then, as it is but imperfectly, even now, understood. That is, by judicious and skilful *summer pruning*. Equalizing the sap, and preventing the development of luxurious shoots, must receive attention during growth. The most vigorous growing shoot will be effectually checked by simply breaking out the point. It is perfectly possible to train trees in any desired shape, and keep them in a healthy and constantly productive state, without the use of a knife, or any instrument sharper than the finger and thumb. This subject will come under consideration again.

Strawberries.—Hoe between the rows, and cover with a mulching, either of straw, tan bark, or short grass; anything that will keep the fruit clean; a thorough watering will be of great use after the first flowers are set to fruit.

Gooseberries.—Mildew may be prevented, by watering with soapsuds, over the branches. A radical cure for this pest may be formed by mixing a peck of lime, and a pound of sulphur, in 10 gallons of water; let it stand and settle. A pint, in 4 gallons of water, syringed over the bushes when the fruit is forming, will keep them clean; cover the ground with manure, and spread a small quantity of salt over it, to keep as much moisture as possible about the roots.

Figs should be uncovered; this fruit is much neglected; planted in rather poor, well drained soil, laid down and covered during winter, they are usually very productive.

Grapes.—Rub off all superfluous shoots as soon as the strongest can be ascertained. In consequence of the extreme severity of the winter, much of the young wood is killed. Young vines, that ripened their wood imperfectly last season, are most likely to suffer in this way. Such shoots require to be cut back to a sound and healthy part. Even though only injured slightly, they require cutting down, as such unhealthy shoots spread disease over the whole plant.

Grapery.—In well-drained borders (and all vine borders should be well drained), thorough applications of rain water should be given at intervals of ten or twelve days, if the weather

continue dry and clear. This is independent of the daily sprinkling necessary on the floor and paths of the house, to charge the atmosphere with moisture. Air regularly, but gradually; nothing can be more injurious than sudden checks, produced by a hasty opening of the ventilators; a fearful source of mildew. Towards the end of the month leave the top sashes open all night, and allow the temperature to fluctuate in a similar manner as the external atmosphere. There is no climate in the world where the temperature is constantly the same. Disbudding, and tying up the young shoots, will be the principal requirements. A slight syringing when in flower, helps to thin, or, rather, prevents the thick setting of the berries; of course, it must be done cautiously.

Greenhouse.—The top sashes may now be lowered day and night, unless heavy rains, or very strong winds prevail. Shading will now be requisite. An awning mounted on rollers is the most complete method. Washing the glass with whitewash, or painting with boiled oil and litharge, saves trouble, but the continued shade is not always desirable. The syringe may be used freely in distributing water over the house, and also those plants not in flower. Guard against currents of dry air sweeping over the plants, by ventilating only by the top openings. A shaded, moist atmosphere is most congenial to the majority of summer flowering plants.

Pelargoniums will still be flowering; pick off all decayed flowers, and gradually withhold water as they cease growing. Save seed from the best varieties. They ripen seed most perfectly out of doors, in a full exposure to sun.

Camellias and *Azaleas* may be withdrawn from the house as they finish growth; plunge the pots in tan bark or ashes. Greenhouse plants are much injured by exposing the pots to sun and wind.

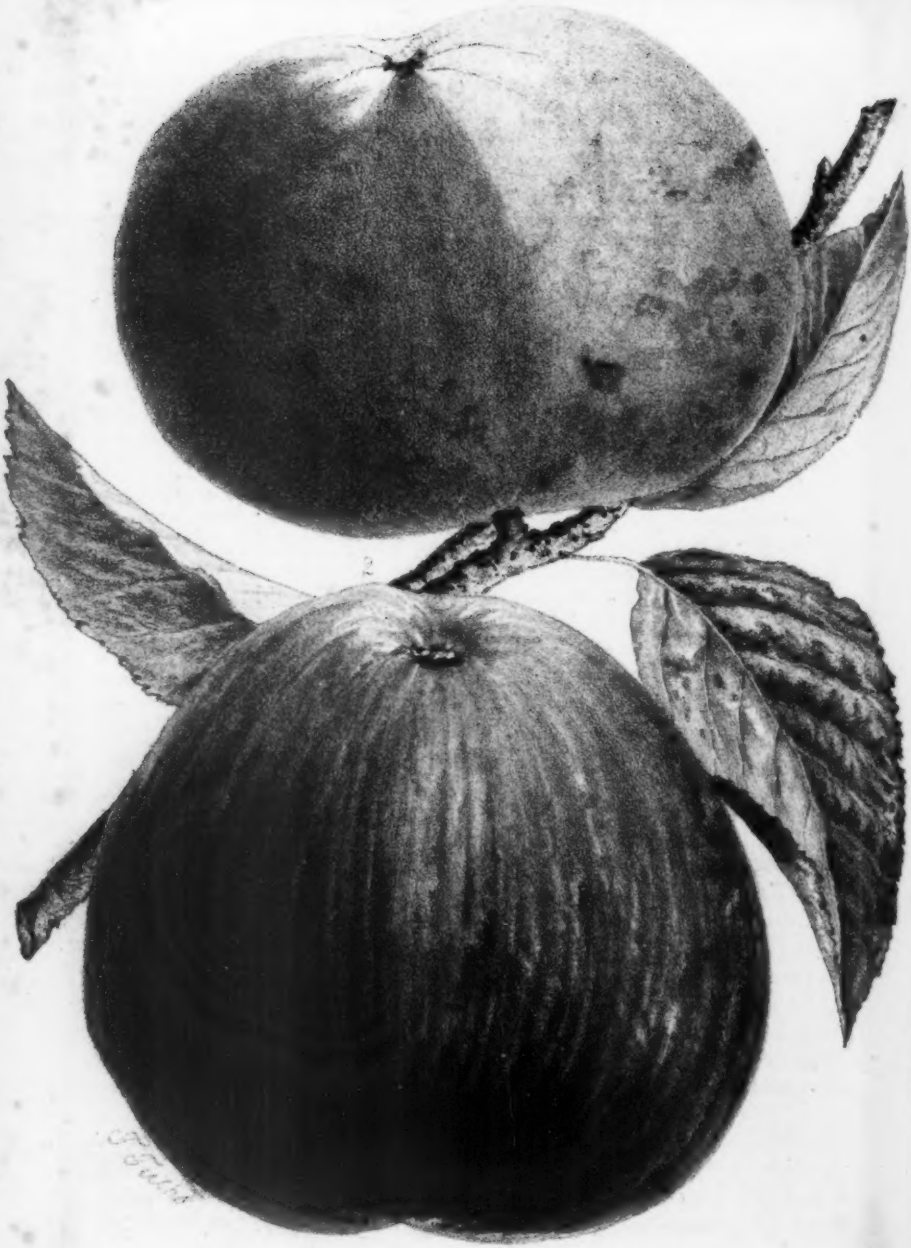
Heaths.—*Epacrises*, and similar hard-wooded kinds, are better in the house during the summer months, unless under skilful management. The great point is to get the growths properly hardened and fitted for thorough exposure; then they will stand the fiercest sun without injury. In their natural habitats, they are subjected for months to parching sun and intense aridity. The nearer we can imitate nature, the more likelihood of success. Young plants may be kept in a steady growing condition, by repotting when necessary, and keeping them in a moist shady position.

Cactii will require liberal watering while making growth; see that the soil is well drained. *Achemenes*, *Gloxinias*, Clerodendrons, Begonias, Fuchsias, and other plants, for summer blooming, should be repotted as they require it, and attend in time to staking, pinching the shoots, &c., to form well-shaped plants. There is no beauty in plants that are grown tall and weak, and no surer indication of unskilful management.

Flower Garden.—Dahlias, heliotropes, balsams, and other tender plants, should be left under cover until the middle of the month. The hardier kinds may be planted out at once. In planting geometrical flower gardens, it has been usual to fill each bed with a separate kind of plant. When properly carried out, the effect is good. Where the beds are irregular, a better effect is produced by introducing several species, for instance a centre of scarlet pelargoniums may be surrounded with white verbenas. Blue salvias and the yellow Œonthera, heliotropes, and petunias, form good combinations. Beds of white roses are heightened in beauty when carpeted with scarlet verbenas. Much taste may be displayed in contrasting colors, and arranging plants with reference to height, shape, and color. These *mental* preliminaries should receive attention, and be decided upon previous to commencing active operations. Chrysanthemum cuttings may be rooted readily at this season; they will come into flower for greenhouse and conservatory decoration in the fall.

Lawns must be frequently mown to look well; rake the cut grass quite clean. A hard broom will answer for small plots. In more extensive places, the patent grass or daisy rake, is indispensable. Cut early in the morning, when there is copious dew, and clean up immediately, if you wish to economize labor. A smooth, green lawn suggests repose and quiet; all necessary labor, in keeping, should therefore be performed in the most expeditious manner.

Pleasure Grounds.—Evergreens may be yet planted. The past winter has abridged our list of hardy sorts. Euonymus Japonica is done brown; that graceful plant, the Deodar cedar has also been sorely tried. It cannot be serviceable when a permanent evergreen tree is desired. We must confide in our well-tried and trustworthy friends, the Norway and hemlock spruce, white pine, Bhotan pine, Scotch and Austrian firs, arbor vitæ, balsam, and silver firs, and the red cedar. Prune out all dead wood at once; many plants that appear hurt, have their buds uninjured, therefore it may be necessary to proceed with caution until growth commences. The remarks of last month on this head are still in season.



CAROLINA WINTER QUEEN APPLE. 2, NICKAJACK APPLE N.C.